10-27-2010

The SInet 2010 eBook

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Description

This e-book includes peer-reviewed full papers of the majority of the presentations at the inaugural Social Innovation Network conference, 28-29 September 2009, Wollongong Australia. Authors brought their perspectives from the different disciplines of accounting, engineering, education, management, science, literature, informatics, creative arts, economics, marketing and psychology. The range of social issues reflected in these papers is evidence of the success of the SInet as a network of scholars, working across traditional boundaries to explore and advocate innovative approaches to social, technical and environmental challenges that confront modern societies. The chapters have been organised to firstly present discussions on research and electronic networks, followed by sections which provide illustrations of the application and relevance of social innovation concepts and approaches.

Disciplines

Sociology

Publisher

SInet University of Wollongong

ISBN

9781741281880 (online)

University of Wollongong

The SInet 2010 eBook

(Proceedings of The SInet 2009 Conference)

Editor: A/Prof Heather Yeatman

Publisher: SInet UOW

P6 Year: 2010

The SInet 2010 eBook

Edited by

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Social Innovation Network (SInet),

University of Wollongong, Australia

Editor: A/Prof Heather Yeatman
Title: The SInet 2010 eBook
Publisher: Social Innovation Network (SInet), University of Wollongong
Publication Year: 2010
Format: eBook
ISBN: 978-1-74128-188-0 (online)

CONTENTS

PREFACE

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> *Social innovation is "the development of new concepts, strategies and tools that empower individuals, communities, profit and non-profit organisations and the government to improve quality of life, where quality of life means material standard of living, as well as personal well-being in terms of health and environment and social harmony."*
> *http://research.uow.edu.au/sinet/index.html*

Background

In September 2009 the Social Innovation network (*SInet*) of the University of Wollongong held its inaugural conference. The purpose of the conference was to showcase the social innovation research initiatives underway at Wollongong, to facilitate further networking between the SInet members and community participants, to identify new opportunities for collaborations and to foster further research on social innovation. This book is a collation of a majority of the conference papers, which have been refined and independently reviewed prior to inclusion.

The University of Wollongong recognised the potential of social innovation and supported a network of researchers in 2007 to come together as the *Social Innovation network* (*SInet*), to explore the concept of social innovation and to research the application of innovative approaches to existing social problems and challenges. The University's commitment to fostering research through network arrangements was of itself an innovative approach, demonstrating its willingness to develop new strategies and tools to empower its researchers to tackle contemporary social challenges through alternative means.

The *SInet* operates as a collaborative network of researchers from across a wide range of discipline areas, committed to applying their research to the development of approaches and strategies to achieve social innovation. It operates through informal links between autonomous, self-directed and self-coordinating research groups. A core element of the *SInet* is expertise in the area of network theory and its application to contemporary social issues that do not fit the traditional institutional mode.

The aims of the *SInet* group are to:

- facilitate the information flow between researchers across Faculties with similar research interests,
- provide a platform for sharing of ideas, expertise, networks, etc., and
- strengthen the position of all researchers in the area of social innovation by developing a strong network and harvest complementary competence and expertise.

The *SInet* has a focus on partnering with *local communities and organisations* to develop innovative approaches to build better ideas and quality of life for the future.

Wollongong University's strong relationships with its community and local organisations provide an ideal setting to trial and refine social innovation initiatives.

SInet Papers

This publication includes peer-reviewed full papers of the majority of the presentations at the inaugural Social Innovation Network conference, 28-29 September 2009, Wollongong Australia. Authors brought their perspectives from the different disciplines of accounting, engineering, education, management, science, literature, informatics, creative arts, economics, marketing and psychology. The range of social issues reflected in these papers is evidence of the success of the *SInet* as a network of scholars, working across traditional boundaries to explore and advocate innovative approaches to social, technical and environmental challenges that confront modern societies.

The chapters have been organised to firstly present discussions on research and electronic networks, followed by sections which provide illustrations of the application and relevance of social innovation concepts and approaches.

The Introduction commences with a paper by Hasan, who sets the scene regarding the application of network approaches to structuring research within an academic institution. She describes how university researchers' performance can be enhanced by networks that provide a more flexible, reconfigurable and responsive environment that serves to capitalise their strengths and knowledge. Not everyone is comfortable with a network-centric configuration and she poses the question, "will SInet work?" Jones and Burgess present their work on the application of electronic networks (eCollaboration) to enhance business growth, competitiveness and future economic viability of particularly small and medium enterprises. They demonstrate how collaboration through networks potentially provides the benefits of synergies, economies of scale, market expansion, market power and supply chain advantages that may provide greater advantages for SMEs over the more traditional competitive business approaches, especially in a globalised market. Jones and Burgess report on their qualitative research with a range of collaborators in the Southern Sydney region, identifying trust as a crucial element in collaborative approaches and a focus on core business as an important enabler.

The following two chapters provide practical examples of applying a network approach to research. Boyde and Russell outline how networks acted to enhance research advocacy and policy outcomes in relation to the social value issue of providing alternatives to the use of animals in research. Using a range of network initiatives, including a symposium and website, researchers were connected with concerned community organisations, students, university ethics committees and the media to explore and support new approaches to animal-based research. In the next chapter, Wood Conroy and Garcia present their study of a gold garment from ancient Cyprus. In order to fully extract the range of information from this fragment of cloth, new research networks were created, incorporating creative arts, science and archaeology. Insights not otherwise possible were gained about the social status of the deceased, the physical environment in the 2nd century, the ancient trade routes and weaving and dye production in Greco-Roman Cyprus.

Networks have been found to be particularly useful in fostering collaboration between scholars and promoting the effectiveness of communication, as demonstrated in literary research. Clarke, Pepper and Noble applied collaborative authoring technologies in the development and delivery of subjects within transnational academic programs. Learning about complex systems, within the context of transnational subject delivery, was supported through an idealised learning process which emphasised continuous experimentation in both real and virtual worlds utilising the technological innovations such as wikis.

The next three chapters then explore social innovation, communication modes and literature. Sharrad explores the connection of post colonial literature with social change. He weaves into his text an array of important social changes that have been precipitated by seminal pieces of literature: Dickens and the workhouses of C18 Britain; the impact of Achebe's *Things fall apart* and the emergence of the Nigerian nation; and Zola's *Germinal* and social reform in France. He concludes that "for social innovation to occur, it needs recognition of a need, the imagination of possible alternatives, emotional engagement to motivate action for change, and intelligent reflection to model or remodel outcomes". This, he argues, is often generated, supported or sped up through the agency of the arts. The subsequent two chapters in this section both focus on the impact of literature on apartheid in South Africa. Collett focuses on the contributions of the South African poet Brutus to social change during the late apartheid period, through affecting/influencing/encouraging individuals to desire change and through his cultural authority as a writer to influence political actions. Da Silva focuses on the post-apartheid works of Coetzee, Galgut and Schonstein, exploring how this literature functioned as a bridge between past, present and future. These writers depict the challenges and opportunities facing white South Africans and their role within a vulnerable and yet resilient country.

The relevance of social innovation to organisations and management is explored in the next three chapters. Barrett and Hasan summarise research from the SInet node, *People and Organisations Research Centre*. Through a reflective process, utilising a social innovation lens, the concepts of 'change', 'emergence' and 'precariousness' were used to strengthen research on people and organisations. New insights into previously established concepts are identified in the chapter, especially through a consideration of non-traditional entrepreneurial ventures and the higher level of abstraction made possible through the networks established and facilitated by the SInet. In their chapter, Dawson and Daniel report on a selective historical examination of innovation within competitive business markets and on various attempts to delineate the 'social' and 'technical' aspects of this process. They call for a more critically reflective approach that does not view the social and the technical in competition, rather they take these to be a duality in the striving to achieve social goals. Verenikina and Hasan then report on their research which has promoted the importance of play (*'Serious games')* in organisations, and the use of on-line gaming as a social innovation to promote team behaviours. Their results contribute a very practical and tangible example of the contribution social innovative approaches can make to organisational and management effectiveness. James and Clarke examine the changing demands and expectations that the implementation and use of this Web 2.0 technologies has on the information systems used by these organisations, particularly in relation to the changing nature of the relationships between government service providers and the citizens that use the services.

Professional roles with a focus on social issues can also benefit from more innovative perspectives. Two chapters explore social innovation in relation to foster care. Randle, Miller, Dolnicar and Ciarrochi join together from the disciplines of psychology, marketing and social and business research to explore the use of market segmentation to elucidate the reasons why people do not foster care. They identify the different barriers relevant to particular segments of the population, and conclude that different approaches are required to overcome these barriers and increase involvement in foster caring. Broady and Stoyles draw on theoretical models from the area of disability care to develop new frames within which to consider foster children and the care they receive. In their chapter they argue that a child living in foster care because of their experience of adverse environmental influences, is likely to manifest maladaptive social and emotional behaviours, which should be regarded as a form of disability. Their reflection on the needs of foster children through this lens has the potential to impact in a number of areas: on the foster care experience itself; training of carers; on-going support; and also retention of foster carers. The theme of appropriate care is also explored by accountants, Smark and Bowrey, in their chapter on the measurement and decline of moral therapy as practised in 19th century Britain. Their application of accountancy perspectives on the use of statistics by government officials and mental health professionals provides innovative insight into this social policy area. Their results indicate that approaches utilising particular mathematical and scientific methods had important impacts both on views about the illness, what was considered appropriate treatment and allocation of funding. Rudkin and Cooper, also from accounting and finance, explore the gifting relationship. They argue that imposing Northern accounting calculus to donor/recipient financial relationships is inappropriate as the implied reciprocity of the relationship does not hold and cultural meanings of value are silenced by dominant economic perspectives. In the last chapter in this section, Clarke, Noble, Algie and Kyriazis then describe the potential for a portal or virtual community to support parents and carers of children with disabilities access the range of professional services they may require.

The final section of this publication comprises three papers that report on the application of social innovation perspectives to environment related issues. All three chapters highlight the importance of traditional cultural values when considering environment issues. Barwell's study of the albatross led him to call for a rethink of our relationship with the natural world represented by the iconic status of these birds. His study found that people's interest in the birds and the resultant increase in tourism to their habitats has resulted in new threats to their existence. He advocates for innovative thinking that establishes more sustainable relationships between humans and the environment, rather than the more limited use value considerations? of the birds in isolation. In a similar way Russell calls for new perspectives to be considered in order to recognise sea rights of indigenous communities.

In the final chapter Lawson, Eklund, Goodall, Wray, Daniel and van Olffen present a positive example of the application of more innovative approaches to new museum environments through the utilisation of digital technology. The Virtual Museum of the Pacific provides an interesting model for online community interaction. A digital ecosystem was collaboratively developed through conversations of online communities, who facilitated and expanded debates about museum objects via tagging and folksonomies that were situated alongside the Australian Museum's taxonomy.

The role of objects is considered and contested by the communities themselves, demonstrating exciting new developments for collection management and social innovation in the museum industry.

SInet views as its next challenge the need to focus on selected social issues that affect the local Illawarra community and may particularly benefit from innovative and networked research, such as environmental sustainability and the future of our food systems.

ACKNOWLEDGEMENT

The following people deserve acknowledgement:

We appreciate ***Limin Tan***, ***Felicity Poad*** and ***Jessica Mantei*** for their admin support and contributions to the compiling of this publication.

Editor, ***Linda Cohen*** did an amazing job in undertaking the final review and edits of chapters.

We acknowledge the important work done by independent reviewer ***Michael Organ*** for providing important publication advice.

We would also like to acknowledge the independent reviewers for their time and valuable input.

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SECTION I

RESEARCH NETWORKS

CHAPTER 1

Socially Innovative Research Networks: A Roadmap for SInet

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Keywords
network, network-centric, social technologies, social innovation

Abstract
The Social Innovation Network (SInet) was established for cross-disciplinary research on social innovation to "create better futures for people". SInet is itself socially innovative since a network is a relatively unfamiliar configuration for a university-wide research unit. A network provides an identity to a research collective that is real, having status and support, but which is fundamentally different to an institute. In a network, connections and flows of knowledge tend to be horizontal not vertical. A network is flexible, reconfigurable, responsive to change and less formal, and has the potential for lower administrative overheads. As knowledge workers, university researchers perform best in an organisation that supports an open culture where knowledge workers are left alone to work, with sufficient support and resources. Their performance is maximised by capitalising on their strengths and knowledge rather than trying to force them into moulds.

This paper compares the attributes of a research network to a more traditional hierarchical institute. It asks and answers the questions: what is a research network; why have one for intra-institutional research; and how can it be created, sustained and its value determined? Three theories will be used to (a) provide the reasons and justification for network-centric configurations, (b) make sense of the network-centric paradigm and its characteristics, and (c) understand how to act in a network-centric workplace arrangement. Not everyone is comfortable working in a self-directed network-centric configuration, so will SInet work, and if so, how?

* * * * *

Introduction

The Social Innovation Network (SInet) was established at the University of Wollongong to create an appropriate structure for cross-disciplinary research endeavours that fall under the banner of 'social innovation'. The broad aim of SInet researchers is to "create better futures for people"[1] and a network was considered to be an appropriate structure to coordinate the activities of individuals and groups. This paper recognises that a network is a relatively unfamiliar configuration for a formal university research unit and so SInet is itself socially innovative. An objective of SInet should be to take advantage of network characteristics, such

[1] http://www.uow.edu.au/research/networks/SInet/index.html

as openness, diversity and adaptability, are needed for meaningful discoveries and innovation in the current complex environment.

By their very nature, networked arrangements – also referred to as network-centric configurations – are suitable for confronting complex dynamic situations, as networks tend to be flexible, self-generated, reconfigurable and responsive entities (Crawford et al. 2009). Although researchers have always made use of informal networks, these have naturally tended to be discipline-based and cross-institutional as, within institutions, disciplines are normally located within a formal organisational structure. Intra-institutional research networks, when they do exist, are usually informal, serendipitous and cross-disciplinary as shown by research on the informal ways of organising (see Groat 1997).

This paper uses literature on theory and research into networks to provide answers to questions such as: what is a research network; why have one for intra-institutional research; and how can it be created, sustained and its value determined? Comparisons will be made between the potential value of a research network and a more traditional hierarchical research institute. The claim is made that a network provides an identity to a research collective that is real, has status and can attract support, but which is fundamentally different to an institute, requiring a different governance philosophy and operating with lower administrative overheads. Not everyone familiar with traditional research structures is comfortable with network arrangements, so can they work, and if so, how?

Networked organisations and network-centric configurations

Networks are a well-understood arrangement of interconnected things or people. This is probably because they are easy to visualise with shapes for nodes and lines to interconnect them. Human networks have long been associated with communication, social interaction and community activities. In the 1980s, the networking of computers raised the profile of human networks, as people in the workplace became connected through shared files and data, email, intranets and groupware. Then the network of networks, the Internet, came along, making these interconnections global and providing a platform for a growing set of innovative networked applications. The management and information systems literature is now full of terms such as ‘networked organisation’ (Lipnack & Stamps 1994), ‘virtual enterprise’ (Byrne, Brandt, & Port 1993), ‘network-centrism’ (Warne, Ali & Hasan 2005b), ‘communities of practice’ (Wenger 1998), ‘small-worlds’ (Buchanan 2003), ‘six degrees of separation’ (Newman 2003), the World Wide Web (WWW) and now Web 2.0 (McAfee 2006).

A networked organisation is one where “people and groups act as independent nodes, link across boundaries, work together for a common purpose; have multiple leaders, lots of voluntary links and interactions” (Lipnack & Stamps 1994). In a network-centric structure, members of an organisation use the Internet to “leverage information and increase competitive advantage through the collaboration of agile self-directed teams” (Hasan & Pousti 2006). In a network, connections and flows of knowledge tend to be horizontal, across boundaries of traditional organisational units, not vertical (i.e. up and down the hierarchy). Originally conceived as being technology-based, the network-centric paradigm is now concerned with how people are organised to provide the flexibility to match the current volatile environment (Warne, Ali & Hasan 2005b). The network-centric paradigm is “a return to the reality and value of human relationships, commitment, engagement and purpose, as the driving forces behind shared endeavour” (Crawford et al. 2009). As a result, networked organisations are less formal, have more distributed decision-making and are more responsive

to change. The new Internet generation, Web 2.0, supports this informal people-focussed configuration with emerging social networking tools and cultures (Pfaff & Hasan 2007). Whereas Web 1.0 refers to the use of the Internet to enable information sharing and e-commerce transactions, Web 2.0 is a new generation of the WWW where the Internet is used as the platform for social technological tools that allow people to communicate, coordinate and collaborate in ways which are natural and widely accessible (Hasan & Pfaff 2007).

Characteristic of network-centric organisation are: flatter hierarchies; decentralised decision-making; a greater capacity for tolerance of ambiguity; permeable internal and external boundaries; employee empowerment; the capacity for renewal; self-organising units, and self-integrating coordination mechanisms (Daft & Lewin 1993; Warne, Hasan, & Ali 2005a). It is probable that a successful network-centric organisation is dependent on the vitality of small autonomous, self-directed and self-coordinating groupings (Warne, Ali & Hasan 2005b) and this is one lesson that should be heeded by leaders of networked research entities such as SInet.

Further lessons on network operations of interest to both research and practice come from an increase in network-related structures enabled by the expansion of the Internet and globalisation. Among these are the developments of virtual teams and virtual enterprises (Byrne, Brandt & Port 1993), where temporary networks of individuals, groups and entire organisations often undertake joint projects that are unrestricted by time and place due to support from Web-based information and communications technologies. Research in this area points to the importance of balancing face-to-face with online activities (Crawford & Hasan 2006), and the critical role of social learning with the importance of developing a culture of empowerment, trust, and forgiveness in these ways of working (Warne et al. 2001). A definitive lesson on the viability of network-centric configurations comes from the challenges of allowing them to exist within traditional hierarchical organisations. Research on such hybrid or blended organisations is scarce indicating that there are as yet unresolved problems in this space (Peltokorpi & Tsuyuki 2006).

More recently, the social networking phenomenon has grown exponentially in the supportive online environment and become self-sustaining even within organisations (Hasan & Pfaff 2007). These are invariable ‘scale-free’ networks having a few highly connected nodes, which act as focal points for hubs within the network, and many nodes have very few links to other nodes (Newman 2003). The online end-user generated encyclopaedia Wikipedia has been widely studied in this regard and the work of Ingawale, Roy & Seetharaman (2009) on the development of cultural norms within the network of contributors to Wikipedia has particularly relevant findings. This study demonstrates the importance of establishing a self-determining practice early in the life of the network which empowers high degree nodes (people with many connections) to impose a culture of respect and support among members and that once established this culture is very hard to change. This study also recognises the importance of network members who span the naturally forming hubs and that these ‘boundary spanners’ are usually serendipitous links between sub-sections of the network.

Characteristics of researchers as knowledge workers

The term ‘knowledge worker’ is ascribed to Drucker (1959) who used the term to describe someone who processes existing information to create new information which could be used to define and solve problems. Researchers could thus be considered knowledge workers. One of the defining characteristics of knowledge work is that the outputs of work activities entail knowledge as an essential component where the worker has a deep understanding of the body

of knowledge that underlies the object of their work (Iivari & Linger 1999). The way one maximises knowledge workers' performance is by capitalising on their strengths and their knowledge rather than trying to force them into moulds (Drucker 1988). They perform best in an organisation that welcomes change and supports an open culture where knowledge workers are left alone to work, with sufficient support and resources.

As knowledge workers, researchers have two main allegiances. On the one hand they belong to their institution, and/or a unit within it, who pays them and provides resources. On the other hand they have strong connections to their disciplinary peers in the worldwide body of scholars who judge their work for publication, for its quality and contribution. The second of these probably has some hierarchical structures, such as professional associations and so on, but it also has many informal networks of researchers who meet at conferences, visit each other for sabbaticals and seminar presentations, collaborate on projects, reference each other and critique each other's work. These networks are for the most part self-selected and self-organised. They may not have a formal identity and are probably in a constant state of flux regarding composition, activities and arrangements. Most researchers flourish through their external networks and are comfortable working this way with those in disciplines or similar areas. The viability of such networks has increased through the use of Internet-based applications as shown by work on e-research (Anderson & Kanuka 2003; Cram 2003; Thomas & Streib 2005).

As mentioned above, the context is different within institutions such as universities where similar disciplines are usually organised into formal structures such as Faculties, Schools and Departments. These units manage careers, resources and recognition, and they are mainly focussed on the individual. Although small collaborative groups do form, either for limited projects or for ongoing joint research, the competitive institutional culture mitigates against their success. They subsequently break up, continue to exist informally without much support, or are formalised into official centres. SInet is an attempt to form a network of small centres and project groups with its own identity, resources and means of functioning. The following section presents some theory and previous research on networks.

Theoretical underpinnings of organisational networks

It is clear that the demand for a social innovation, such as a research network, in the current environment poses different problems requiring different levels of understanding and analysis as well as different solutions. In seeking a theoretical basis for the study of organisational networks it is important to cover three perspectives of the area: (a) reasons and justification for network-centric configurations; (b) making sense of the network-centric paradigm and its characteristics; and (c) understanding how to act in a network-centric arrangement of the workplace. A separate theoretical framework is used for each of these aspects.

a) reasons and justification for network-centric configurations

There is no doubt that we dwell in a varied and turbulent environment accelerated by advances in digital technologies and the Internet. In this complex environment elements are increasingly interrelated and constantly evolving. A climate of both evolutionary and revolutionary change, with a confronting variety of risks, is stressing all human enterprise (Hasan 2008). Strategies for surviving the current challenging environment of diversity and change include the concept of being a 'learning organisation' as introduced by Senge (1990) or becoming a 'learning networked organisation' (Kuutti & Vikkunen 1995). The need to match the diversity and responsiveness within an organisation to the complex and dynamic challenges of the environment is consistent with the Law of Requisite Variety (Ashby 1957),

which implies that, with the support of logical reasoning and empirical evidence, only variety can master variety. So if the environment contains a complex network of diversity and change, this well-tested Law provides us with a reason to consider networked arrangements within organisations as a sensible way to match the problems posed by this environment.

b) making sense of the network-centric paradigm and its characteristics

To make sense of the spectrum of problems and solutions facing a social innovation network requires a holistic sense-making model. One such model often used in this context is the Cynefin framework developed through the research and practice of knowledge management by Dave Snowden (2002) whilst working at IBM. Cynefin provides a perspective, language and conceptual lens which allows us to characterise issues and find suitable solutions to a wide range of diverse problems, particularly those that are complicated, complex and dynamic (as is often the case with networks). As shown in Figure 1, the Cynefin framework has five domains reflecting the different relationships between cause and effect and different ways of working in these various domains. Each domain has a different mode of community behaviour and each implies the need for a different form of management and a different leadership style, with the adoption of different tools, practices and conceptual understanding. For example, a network is inherently different, and needs to be managed differently, to a hierarchical bureaucratic organisation. In proposing the Cynefin model, initially for knowledge management but increasingly for other areas of investigation, Snowden (2002) makes a point of strongly resisting the existence of a single or idealised model but rather sees the key to survival and growth as coming from the ability to adapt to change through the diversity of approach. This involves an awareness and understanding of the borders between different domains and the acquisition of tools and techniques to enable border transitions as needed.

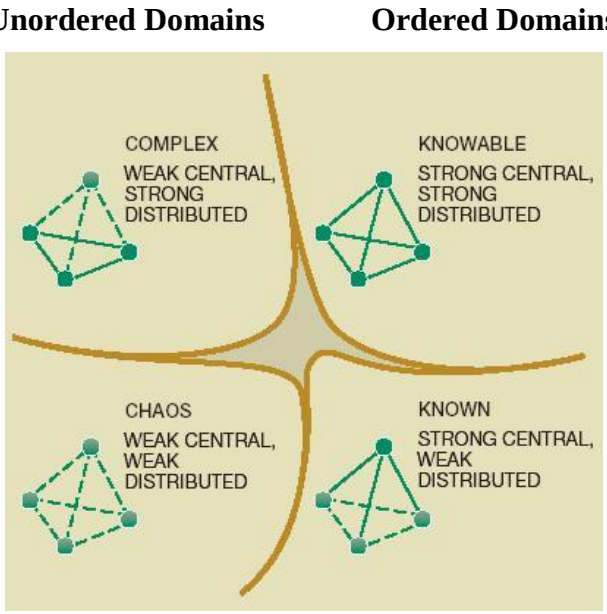

Figure 1: The Cynefin framework with two ordered and two unordered domains with disorder in the centre. The vertical and horizontal connection strengths of Cynefin domains are drawn from Kurtz and Snowden (2003).

As shown in Figure 1, the Cynefin framework has five domains reflecting the different relationships, structures and ways of working in a diverse world. Four of the Cynefin domains are acceptable places to be. Going anticlockwise starting at the bottom right, they

are:
The Known or Simple Domain, in which the relationship between cause and effect is obvious. This suits a centralised bureaucratic way of working using vertical command and control with weak horizontal links in organisations. Solutions to problems in this domain often involve the generation of best practice, standard routines, rules and regulations.
The Knowable or Complicated Domain, in which the relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge. This domain is the realm of scientific research where it is assumed that all knowledge is knowable. Matrix organisational structures reside in this domain with strong relationships both vertically and horizontally.
The Unordered Complex Domain, in which the relationship between cause and effect can only be perceived in retrospect, not in advance. Aspects of Complexity Theory developed in biology are relevant to this domain. This is where community and networked structures usually occur. The main subject of this paper proposes solutions to problems in this domain.
The Chaotic Unordered Domain, in which there is no relationship between cause and effect at a systems level. Aspects of Chaos Theory developed in mathematical disciplines are relevant to this domain. The connections between individuals and organisations working in this domain are weak. Here there is no discernable structure or obvious solutions.

The fifth central domain is *disorder*, which is the destructive state of not knowing what type of causality exists and thus not knowing which way of working is best. While problems may legitimately be allowed to exist in the other four domains if approached with suitable solutions, those in states of *disorder* are normally harmful and should be moved into one of the other domains.

The two right hand domains (known/simple and knowable/complicated) are *ordered* whereas those on the left (complex and chaos) are sensibly viewed as *unordered*. As ordered or simple problems become more complicated, there are two main types of solutions. On the one hand, problem solvers can endeavour to retain order by imposing structure, simplifying and decomposing into small problems that can be tackled more easily. On the other hand, problem solvers can move to the left unordered side of Cynefin and take a holistic view where the complexity and chaos is retained and attempts at order are relaxed.

The Cynefin framework has previously been used to make sense of the network-centric paradigm (Kazlauskas & Hasan 2009; Crawford et al. 2009) and therefore it is an appropriate means of understanding the challenges of SInet. An intra-organisational network, such as SInet, inevitably suffers the tension of naturally fitting into the complex domain, with its strong horizontal links and weak vertical ties, but it exists within an ordered hierarchical institutional structure that imposes a strong top-down command and control administration. Characteristics of entities in the complex domain include the need for strong individual or small group identity, self-determination and intrinsic rewards. There is little need for external rewards or a costly system of formal rules, administrative procedures and detailed accountability. A formal command and control institutional regime, as is common within an ordered institution such as a university, limits the inherent flexibility, adaptability, responsiveness and re-configurability of a network – i.e. factors which provide its intrinsic value.

c) understanding how to act in a network-centric arrangement of the workplace
A well-established and comprehensive theory of human activity emanated from the work of the Russian psychologist Vygotsky from the Cultural-Historical tradition. Several of his

students, in particular Leontiev, developed what is now known as the Cultural-Historical Activity Theory (see Verenikina & Gould 1998). In this tradition, *activity* (such as a research project) becomes the unit of analysis and is undertaken by means of a set of subordinate actions. An *activity* is the purposeful engagement of a subject (person or people) towards an object (i.e. it is the sense of the "object of the exercise"). Each human *activity* is identified through the dialectic relationship between subject and object, where the object encompasses focus and purpose of the activity while the subject (the person or group engaged in the activity) incorporates the various motives involved. The core subject-object relationship, i.e. "who is doing what and why", is mediated by physical (primary) and psychological (secondary) tools, and the community within which it takes place (a tertiary tool). This is a two-way concept of mediation where the capability and availability of tools mediates what is able to be done, and the tools, in turn, evolve to hold the historical knowledge of how the community behaves and is organised. As described in Hasan (2003), following the work of Engeström (1987) and Kuutti and Vikkunen (1995), most situations involve many interconnected activities. These can form an activity system and so they are a suitable way to describe what is happening in a network of small active units. Each node of the network can be considered as a separate collective activity with its own focus and using its own research tools within its own disciplinary community. These are interconnected by boundary-spanning members, similar interests or a common purpose. Activity Theory provides a language and concepts to describe what is happening, allowing for diversity and change as well as multiple motives and allegiances.

Research networks: an appropriate context for knowledge workers

It is often said that managing academics is like "herding cats" and this implies a challenge to the way that academic institutions are structured and managed. A better understanding of ways to meet this challenge should be welcome to those charged with this task. In this paper, we examine the possibility that a network is an appropriate structure for academic research. The Introduction posed the questions: what is a research network; why have one for intra-institutional research; and how can it be created, sustained and its value determined? The following sections propose some answers to these questions.

Characteristics of a research network

Successful network-centric organisation depends on the vitality of small autonomous, self-directed and self-coordinating groupings. As previously noted, in networks "people and groups act as independent nodes, link across boundaries, work together for a common purpose; have multiple leaders, lots of voluntary links and interactions" (Lipnack & Stamps 1994). Just like alternative configurations, sustainable networks require reward structures, infrastructure and technologies, a supportive culture and a sympathic leadership style. For networks to be successful, these should be aligned with the beneficial characteristics of networks, namely; flexibility, adaptability, responsiveness to change, and the ability to leverage the diverse capabilities of members.

In accordance with the theories described above, studies by Warne and others (Warne et al. 2001) have explored the types of technologies as well as the human skills and capabilities required to achieve the transformation to a viable network-centric configuration. Here integrity, maturity, adaptability, flexibility, job competency, and a sense of humour all emerged as highly rated skills and qualities for the members of the loosely coupled, self-organising teams that form the nodes of networks.

Where are networks suitable?

Researchers can be classed as knowledge workers who work well in small self-organised groups, which provide a suitable context for discovery and innovation. They do not thrive if forced into moulds, instead preferring the open culture of less formal, networked organisations with distributed decision-making and the flexibility to respond to change. The Law of Requisite Variety (Ashby 1957) suggests that there should be a match between the current complex environment – possessing enormous variety and a rapid rate of change – and the adaptability of networked organisational arrangements. Ways of prospering in complex (unordered) and complicated (ordered) domains can be understood and distinguished between using the Cynefin framework. Whereas complicated situations are ordered and respond to top-down management, a complex world needs a lower concentration of power and more flexible systems to improve problem-solving. A sensible way to successfully manage any complex environment is to incorporate the concepts of emergence and distributed decision-making from Complexity Theory. This leads to the adoption of a network-centric paradigm in organisations, complementing or replacing the rigidity and control of traditional hierarchical bureaucracies that are now becoming increasingly complicated.

How can organisational networks be established and managed?

Transforming a traditional organisation, or a part of it, to incorporate networks is a challenge because managers have to relinquish some of their traditional control to small, self directed teams. At the same time workers need to increase their situational awareness in order to take on greater responsibility and cooperate with others within a small, less prescribed group setting. As shown by the work of Ingawale, Roy & Seetharaman (2009) networks can become self-sustaining if key members are empowered early with the responsibility and authority to build an appropriate sharing culture of mutual respect and support. This situation is consistent with the notions of agreed shared objects among interrelated collective activities in a dynamic activity system. The language and concepts of Activity Theory can be used to explain how such a system can become self-sustaining if the supporting tools are allowed to develop along with the activities in a reciprocal mediating manner. These primary, secondary and tertiary tools include technologies, resource-allocating mechanisms, governance processes and reward structures. The activities, direction and growth of a network can be guided but not mandated. This is counter to the workings of the modern bureaucracy which demands planning, due process and accountability. The positive side of self-direction is relatively inexpensive as there are fewer administrative overheads. However there are other demands, such as trust, the tolerance of failure and the acceptance of outcomes that were not originally anticipated.

How can the value of a network be determined?

Looking specifically at university research, the value of output is usually determined in terms of a set of key performance indicators such as publications, external grants, and research student completions. When these are considered as a Return on Investment (ROI) the cost-effective nature of network must surely be attractive with its low overheads in terms of administration. There are also intrinsic benefits of networks in promoting collaborations that are cross-disciplinary, responsive to new areas of interest and therefore potentially innovative.

Conclusion – practical implications

The discussion in this paper, arising from examining network-centric organisation, has practical implications for research arrangements, such as those at our institution (University of Wollongong), and, in particular, for the research network SInet. This leads to the assertion

that a network provides an identity to a research collective that does not fit the traditional institutional mode. This identity is real, has status and can attract support, but it is fundamentally different to a research institute. It is particularly appropriate for research into social innovations, which is a complex, cross-disciplinary domain. To be effective and to benefit from its flexible configuration, a network requires an open governance philosophy that is appropriate to the complex domain. This is socially innovative with the added bonus of operating with lower administrative overheads. Thus, if judged for its ROI, a research network is potentially the best arrangement for many fields of research endeavour.

To summarise the theoretical underpinnings of organisational networks presented in this paper: Organisations need to be responsive to the complex and dynamic challenges of the environment, as determined by the Law of Requisite Variety (Ashby 1957). Networks such as SInet can help fulfil this need. Understanding the function of organisational networks is enabled through the sense-making Cynefin framework which clarifies the difference between unordered complex structures such as networks, and ordered hierarchical structures common in large organisations. Networks, as complex adaptive systems, can be productive without costly systems of formal rules, administrative procedures and detailed accountability as long as members are allowed to set their own objectives and manage their own affairs with minimal constraints and appropriate resources. The ongoing workings of a network can be understood as a dynamic system of interrelated activities as understood in Activity Theory. Each activity can be seen as a dialectic relationship between subject and object (i.e. "who is doing what"), whose purpose is co-constructed as the activity progresses and is mediated by appropriate primary, secondary and tertiary tools.

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CHAPTER 2

The mechanics of eCollaboration and why it works: an empirical assessment of Australian SMEs

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Keywords
Collaboration, SME, eCollaboration, competition

Abstract
This paper investigates factors conducive to the development of Small and Medium Enterprises (SMEs) innovation in the context of the adoption and use of electronic collaboration technologies (eCollaboration), to enhance business growth, competitiveness and future economic viability.

A change from competition to collaboration is an imperative for many firms today. The current economic climate is one reason why firms should work together, but more urgent than this are the ubiquitous effects of globalisation. Australian firms are facing fierce competition from many overseas nations which have the advantage of cost-effective labour. Businesses must transcend from attitudes of competition to attitudes of collaboration – but how?

This paper answers this question by presenting research which illustrates how SMEs can achieve successful collaboration by using electronic tools to support and facilitate their cooperation. Qualitative data are acquired through focus groups from both successful and unsuccessful collaborators across several industries in the Southern Sydney Region.

Analysis of these data reveals two major factors. These factors are unpacked and explored, and coupled together to provide a model of eCollaboration. They are introduced below:

1) What is needed to make collaboration and eCollaboration work? Five elements are discovered which either inhibit or enable collaboration (trust, reputation, culture, power, and ownership). Of these, trust is found to be the most important to the successful development of collaborative relationships.

2) What are the considerations (enablers and inhibitors) of successful collaboration and eCollaboration? This factor comprises many elements. However, essential elements such as a focus on core business and limited intervention are among the most critical.

* * * * *

Introduction

It is becoming increasingly important for smaller organisations with similar or complementary capabilities to collaborate in order to survive in today's increasingly competitive global marketplace (Cheng et al. 2006; Lawson et al. 2007). For example, Australian small to medium sized enterprises (SMEs) are losing work to international competitors. This occurs not only from price competition, but also because of the inability of local firms to compete on delivery (Ginige 2004). Some of these firms, who work a traditional 8-10 hour day, find themselves competing against firms in Asian countries who are able to adopt a 24x7 work practice. Through collaboration some firms, such as toolmakers (Ginige 2004; Hol & Lawson 2004), have been able to combine their resources, especially labour, to accumulate 30 hour days (3 x 10 hour shifts) and therefore win back some of their lost market share (Lawson et al. 2002; Ginige 2004 & 2006).

This type of collaboration is only possible through the use of information and communication technologies (ICT). ICT allows individual SMEs to efficiently and conveniently communicate and share information related to the job at hand (Hol & Ginige 2004). In addition to enhanced and sustainable competitive advantage, the use of ICT in collaboration – or eCollaboration – provides many benefits. Competing in today's global economy means businesses need to embrace flexibility and innovation as they never have before (Narula 2004; Hol et al. 2006). As a result of increased knowledge embedded in product content, the interchange of formerly disparate technologies, and the sudden ubiquity of electronic commerce, businesses must embrace a broader range of technologies at all levels, such as in manufacturing, distribution and marketing (Burgess & Cooper 1998). Firms need to expand beyond traditional market boundaries and adopt simultaneous strategies for offence and defence as the pressures of globalisation encroach upon typical business domains (Mustaffa & Beaumont 2004).

A proven means of acquiring flexibility and innovation is through collaboration. Collaboration provides synergies, economies of scale, market expansion, market power, and supply chain advantages. This means that businesses no longer need to be expert in every element of their business. Instead, they can partner with firms which complement their needs. In particular, eCollaboration provides the benefits of traditional collaboration, but adds additional benefits such as integrated systems, enhanced knowledge transfer and retention, and increased redundancy of labour and capital (Lawson et al. 2007). Further, with the adoption of eTechnologies (to facilitate collaboration), firms are able to transcend the boundaries of space and time, allowing asynchronous communication and other virtual benefits (Burgess & Sargent 2007).

The problem, however, is that a majority of SMEs are reluctant and/or incapable of adopting collaborative practices (Burgess & Sargent 2007; Hol & Ginige 2008). Enright and Roberts (2003) highlight the comparative weakness of Australian SMEs to embrace collaboration, pointing to particular areas of failure including business leadership, business networks and market intelligence systems. In fact, the literature presents a plethora of reasons for failure of collaboration, such as: ignorance of the benefits (Simpson & Docherty 2004); fear of the technology or of a shortage of skills (Simpson & Docherty 2004); owners' negative attitudes (Fillis et al. 2004); financial and resource constraints (Taylor & Murphy 2004); and fears based on security and trust (Taylor & Murphy 2004; Lawson et al. 2007). Trust in particular, has been identified as being of paramount importance and a significant factor in successful eCollaboration (Lawson et al. 2007). This is especially the case when trying to accomplish

rapid and high level interaction amongst people who have often never met, let alone had the luxury of a long and established work relationship (Al-Hakim et al. 2008).

This paper reports the results of a study of a number of SMEs, located in Sydney's southern suburbs, which are operating at various levels of eCollaboration experience, ranging from those who have not delved into collaborative business relationships through to those who have several successful collaborations under their belt. The aim of the paper is to discover and understand the mechanisms that enable or inhibit successful SME engagement in eCollaboration.

Research method

A qualitative approach was used for data collection in this study. Three methods were employed throughout the research process: focus groups; semi-structured interviews; and observations.

Focus groups

Focus groups were conducted with representatives from three different industry clusters: a defence supply network; an information technology cluster; and a marine association. In total the focus groups involved more than 70 participants. Each encounter was facilitated by an experienced moderator and a scribe. The size of each group was kept between eight and ten participants to encourage equal participation (Krueger 1998). Group consensus was not sought during the session, rather each participant was encouraged to provide their opinion and experiences (Morgan 1997). The goal of each focus group was to allow candid discussion around a range of pre-organised topics. These topics were presented in the form of structured questions, presented in Figure 1.

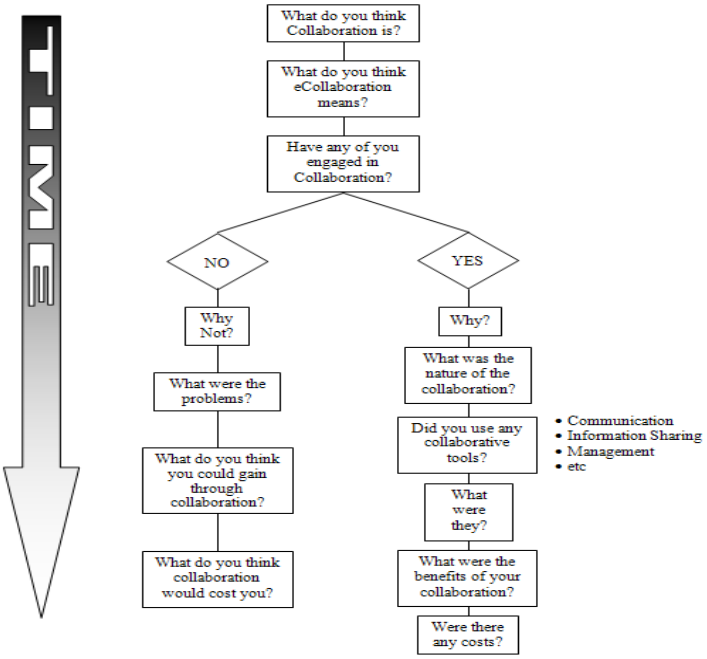

Figure 1. Focus Group Questions

Semi-structured interviews

Multiple interviews were conducted in person, ranging from brief informal discussions averaging about five minutes in duration at cluster events, to planned 30 minute in-depth interviews. These interviews followed a semi-structured interview protocol that allowed probing on issues central to the interviewee's experience and background in eCollaboration. Semi-structured interviews were used because they can provide the researcher with a deeper understanding of the phenomenon under study (Rowan & Huston 1997).

Observations
Notes were taken at two regional cluster meetings. This research method focused on the interaction between cluster members and how that dynamic contributed to or inhibited successful collaboration during the session.

The method of recruiting participants for the study was based on purposive sampling taking an opportunistic focus (Patton 1990). This allowed flexibility in directing the research to interesting topics that arose during the process. This method of recruitment was also appropriate for researching a wide range of opinions on eCollaboration rather than limiting collection to one subset of the conventional collaboration framework (e.g. just businesses). Individuals and groups with some experience in collaborative projects were engaged to elicit their voluntary participation in the research in an endeavour to uncover greater depth in an appropriate topic.

Opportunities were also sought to speak with businesses, cluster facilitators and others involved in collaboration and to observe clusters and collaborative projects in action. Parties were generally very willing to cooperate and assist the research in any way they could.

The data collected were analysed using NVivo and adopting methods of constant comparison and theoretical saturation as espoused by Glaser and Strauss (1967). The object of analysis was to deconstruct blocks of data through fragmentation and then have them coalesce into collections of categories which relate conceptually and theoretically, and which make assumptions about the phenomenon being studied (Jones 2005). This is a process of "decontextualizing and recontextualizing" (Richards 2002, p.200). The emerging sets of data are thematically abstract and provide objective insights and meaning relevant to the research question.

The qualitative method adopted here provides rich insight and in-depth information on the topic. However, the nature of the exploratory qualitative research presupposes that results cannot be generalised for a population (Onwuegbuzie & Leech 2007; Hanson 2008). To do this would require making reductive assumptions and this would sacrifice the validity of the data. Furthermore, the opportunistic approach to recruiting participants means that no specific or representative sample is taken. This suggests that results can only be compared using subjective judgements of the context in which respondents provided answers.

The value of the diverse, in-depth information collected by these methods on an exploratory basis justifies these methodological limitations. Further research will use supporting research methods to establish more complex relationships between the concepts discovered by this initial research.

Findings

The overall findings of the study are illustrated in Figure 2. This figure depicts four themes that were discovered after analysing the data from the focus groups, interviews and observations. These themes are discussed below.

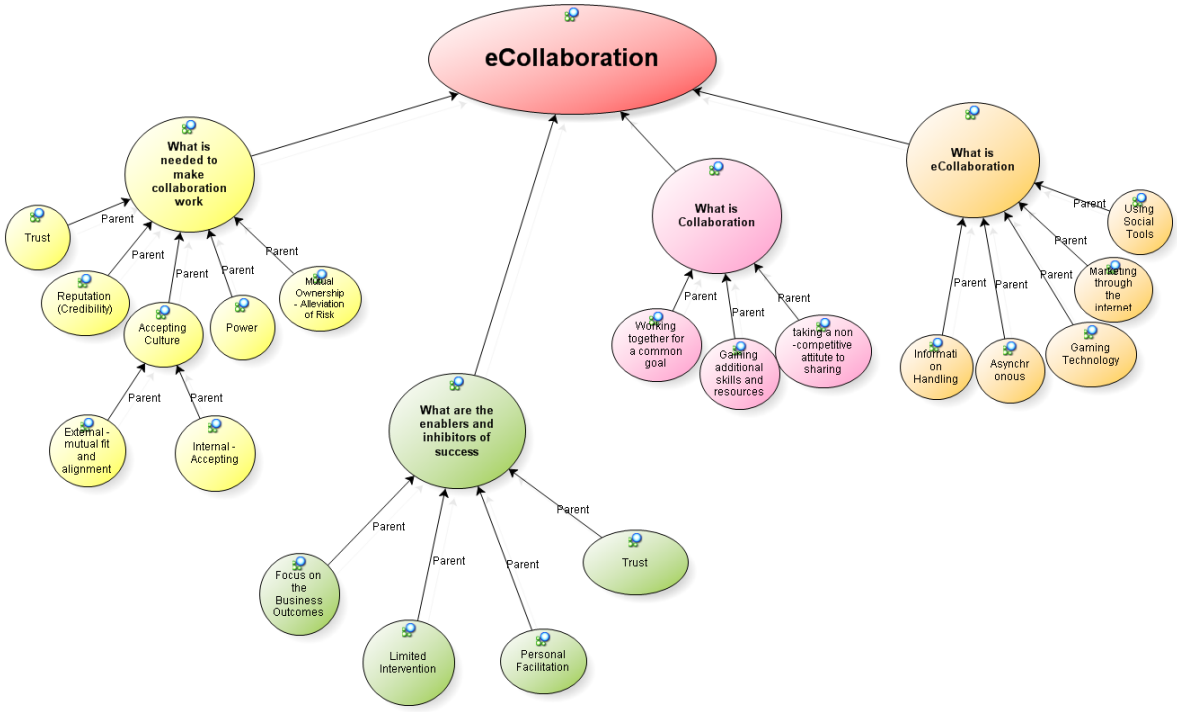

Figure 2. An NVivo Analysis of eCollaboration

What is collaboration?

The participants provided a practical insight into what collaboration meant to them. This was relatively consistent with the view of other scholars: "joint effort toward a group goal" (de Vreede et al. 2009, p.122); "staying connected to the people, documents, and information users need to make well-informed decisions and get their job done" (Stalters & Julien 2008, p.63); and "a process of decision making among interdependent parties; it involves joint ownership of decisions and collective responsibility for outcomes" (Liedtka 1996, p.21). The research found three elements central to the understanding of collaboration by these participants:

(1) Working together for a common goal The element of mutual (or equal) benefit was important in this principle. If a firm was going to benefit to a greater degree in the long term, then it was felt that the collaboration was not sustainable: "There must be mutual benefits overall – sometimes it's going to benefit one party more than another but that isn't sustainable in the long run" (participant from the defence network). This finding implies that even if benefits are reaped by all participants, there is a need for equal proportional distribution for long term sustainability.

(2) Gaining additional skills or resources It is not sufficient to collaborate with someone who has nothing additional to offer. There is a need for synergy where

each party is adding something the other cannot: "Being able to do a job that we couldn't do ourselves" (participant from the IT cluster).

(3) Taking a non-competitive attitude to sharing This was found to be the most difficult principle for firms to adopt. Firms grow in an environment of competition – stemming from the survival of the fittest. However, it is acknowledged that in order to survive and embrace a collaborative framework firms must take a new, non-competitive stance: "there needs to be a willingness to share information as opposed to competitiveness" (participant from the defence network).

What is eCollaboration?

There is a large but subtle difference between collaboration and eCollaboration. The difference is that the latter engages technology to facilitate and enhance the processes of collaboration. Schooler (1996, p.210) defines eCollaboration as "the computer mediated process of two or more (dislocated) people working together on a common purpose or goal, where the participants are committed and inter-dependent and work in a common context using shared resources, supported by (web-based) electronic tools".

Our participants generally agreed with this variation, however, they found that eCollaboration contained five elements:

(1) Information handling The participants found that the electronic side of eCollaboration greatly assisted in the handling of information, especially for copious amounts of information. "Large amounts of information that are available fast and can be broken down [and shared]" (participant from the defence network).

(2) Asynchronicity Great benefits were realised through the ability of collaborators to communicate and share information while not needing to share the same time or place.

(3) Gaming technology This point was not shared by all participants. However, a few saw an opportunity to further enhance collaboration in the electronic sphere by using game/avatar technologies where collaboration could occur in a truly virtual environment. It was felt that this could accelerate trust relationships.

(4) Internet marketing Additional benefits were seen with eCollaboration through the initialisation stages with the use of shared internet space. "The networking required to begin collaboration can start with something as simple as getting your logo on someone else's website and vice versa" (participant from the marine association). The internet could also provide collaborators with a 'one-stop-shop' where clients could go to deal with the team in one location: "A front website is used to give quotes and it is then diverted to one or a number of businesses behind the front depending on the details of the quote" (participant from the defence network).

(5) Use of social tools Common social networking tools like chat, Skype, email, SMS, Google Docs, etc are being used to enhance the collaborative abilities of individuals. The use of these tools alone indicates the transition of many collaborators into the domain of eCollaboration.

What is needed to make collaboration work?
There are many factors that individuals and firms require in order to commit to a collaborative project, and trust is the most fundamental of these. In addition, factors such as an accepting culture and reputation are also important.

(1) Trust In collaborative relationships trust is based on a number of conditions. Firstly, there needs to be a developed and strong personal relationship between key people within the collaborative venture. Secondly, the key people need to share strong personal ethics. Thirdly, all parties need to have a shared concern for the well-being and success of their partners in the collaboration. Fourthly, there needs to be a strong emphasis placed upon organisational ethics and responsibility. Finally, there needs to be the ability for all partners to rely on their team for the delivery of high quality products and services on time, within budget and according to specifications.

Trust needs to be built up over a period of time, and once it is developed it can facilitate a stable collaboration into the future.

(2) Reputation (credibility) The reputation a firm holds works in a number of ways to assist collaboration. For example, firms can trade reputation (or credibility) for skills. This is often the case for larger firms who may decide to collaborate with a smaller firm who has the required expertise: "Organisation A wishes to 'break-in' to an area of commercial operation and seeks collaboration with Organisation B which has a successful track record in that area of operations, while Organisation B wishes to gain access to certain expertise that Organisation A possesses" (participant from the defence network). Reputation can also work to prevent potentially successful collaborations from emerging: "Customers will want to see that collaborative partners within any bid have a track record of successful collaboration, well-integrated management systems for collaborative activity and good prospects for a continued successful organisational partnership. Customers will be cautious about newly-hatched collaborative ventures which have not yet had to bear the test of time" (participant from the IT cluster).

(3) Accepting culture The culture of firms wishing to collaborate must also be supportive of the costs and risks involved. There is also a learning curve, which is steep when considering eCollaboration. Firms must be willing to commit and be aware of all of the pitfalls before beginning. As such, companies face two different hurdles. Internally, the firm's leadership must be willing to accept the tradeoffs, and externally, there must be a good fit between organisational cultures. "A good fit exists between potential collaborators in organisational culture, leadership and management styles" (participant from the marine association).

(4) Power Collaborative partnerships must be democratically structured so that when issues arise they will be treated with equal input from all parties. A situation which has firm A dictating to firm B is not a collaboration, rather it is merely a supply chain. "Power is one party dictating how the partnership will operate. It must be on mutual terms – Democracy rather than dictatorship" (participant from the IT cluster).

(5) Mutual ownership – alleviation of risk Similar to 'Power', a collaborative relationship must provide an overall reduction in risk. This means that all partners must share the risk equally. Even a proportional share of risk which is commensurate with cost and return will fail in the long term as all parties are ultimately held responsible, and are at risk of prejudicing their individual reputations.

What are the enablers and inhibitors of success?

Four recurring factors were uncovered that participants in the study believed would contribute to the success of the collaboration, or that (if not given due consideration) would inhibit SMEs in successfully collaborating. Collaborative projects must focus on business outcomes, must not be driven by external objectives, must have a personal relationship element, and must foster trust.

(1) Focus on the business outcomes All businesses are essentially concerned with their core business objectives and their place in the market. For a firm's involvement in collaboration to be sustainable they must be able to directly see that the benefits outweigh the costs of such a project. As many SMEs have a tactical, day-to-day business focus with less emphasis on long term strategic objectives, the decision for collaboration cannot be based on an abstract proposition for business development. Benefits must be tangible and relevant to the core business of members. This is particularly the case with eCollaboration where implementing technology may involve structural changes and a significant commitment of firm resources.

(2) Limited intervention It was particularly evident in our interviews with cluster facilitators that success was attributed to a 'hands-off' approach to collaboration. Collaboration will occur naturally if it is beneficial for the business. A major enabler for business collaboration is facilitation that is primarily concerned with bringing SMEs together and providing the framework for business networking. Third parties that attempt to force collaboration and drive cluster goals independently of members will inhibit collaboration by breaking down relationships and limiting the involvement and commitment from members.

(3) Personal facilitation The development of electronic communication tools that can assist collaboration enhances the opportunities for business networking that enables effective collaborative partnerships. eCollaboration addresses the barriers of time and distance that may traditionally have been inhibiting. However, a physical presence is still imperative in forming productive relationships and overcoming barriers to collaboration. Businesses must still maintain personal contact to form and maintain relationships. ICT tools must be seen as facilitators which augment successful collaboration rather than being relied upon to ensure successful collaboration. The changes involved in keeping up-to-date with technology inhibits collaborative relationships if this technology is seen as an end in itself rather than just a means of making collaborative communication easier.

(4) Trust There are many factors that individuals and firms require in order to commit to a collaborative project, and the most fundamental of these is trust. Trust is established in the beginning and is best facilitated through personal, face-to-face

meetings between stakeholders. The organisation of collaborative meetings and functions which encourage the development of relationships is important for maximising the potential for collaboration. The issues of mutual ownership in projects and democracy in decision-making are central to successful collaboration and these elements are streamlined by the trust that develops over time. Trust between stakeholders and trust of technological and organisational systems is essential for the effective use of technology to support collaboration. In addition, factors such as an accepting culture and reputation are also important.

Discussion

Of the businesses interviewed, those who had experience with collaboration were successful and were hoping to continue current relationships or embark upon new collaborations when opportunities arose. Those who had not previously ventured into collaboration were mainly under the impression that there was greater strength in 'going it' alone; that they didn't need to involve others. The difference between these two categories of SMEs was *knowledge* and *exposure*. These false assumptions of solitary power came down to an agreed ignorance, and after sharing stories during and after the focus groups most businesses were keen to develop their networking skills and were hoping to seek greater opportunities for future collaboration.

The single most important message for academics, scholars, consultants, government agencies, and generally those who are able to assist firms to develop their networking and collaboration skills, is the need to assist firms with functions and networking events which facilitate collaboration. During this research project the authors spent time at many of these events, and it was amazing to see the way successful networkers were able to build trust and support and, through a methodical approach, inveigle themselves into mutually beneficial business opportunities. The problem is that not all firms see these opportunities, attend these events or are seasoned networkers. The burden therefore lies on those aforementioned groups to create opportunities which maximise exposure and success for all.

Conclusion

eCollaboration contributes greatly to the success of SMEs today. However, it is a function of business that does not come easily in most cases. In the first instance business leaders need to attend functions which facilitate networking. At these events they need to create and build trusting relationships, and create synergies with like-minded firms with whom they have a commonality of purpose and principles. Managers need to be aware of the costs inherent in pursuing collaborative relationships and develop a 'yes' culture which can adapt to, and embrace, collaboration. Given sufficient time and opportunity relationships will develop, and during this time partners must manage their collaboration carefully to maintain trust and equity and to complete tasks as agreed.

Finally, ICT tools should be embraced wherever possible. Firms should start at the simple end of the spectrum, using tools for social networking in the first instance. Using these tools will increase efficiency and will yield higher returns through increased data management and better use of time and location.

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CHAPTER 3

The RAAT Project: Alternatives to using animals in research

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Keywords
Alternatives to animal experimentation, animal ethics, animal replacement technologies

Abstract
One of the hidden pockets of animal cruelty in Western culture is in the scientific laboratories that use animals in experiments. Currently there are about 6 million animals used in experiments each year in Australia (Singer 2009). The vision of the Replace Animals in Australian Testing (RAAT) project is to reduce the number of animals used in scientific experiments and medical research in Australia. We are developing a network of researchers and other individuals or groups interested in advocating non-animal based research and in strengthening the Australian Government/NHMRC guidelines for animal testing. In 2008 we launched the RAAT website http://www.uow.edu.au/arts/research/raat, which is an information resource on replacement technologies for animal testing. Achieving advances in alternatives to animal testing requires a change in both scientific and social attitudes as well as promoting new and innovative research approaches and technologies. We are exploring ways forward in communicating and developing RAAT.

* * * * *

Introduction

Human relationships with animals can foster a high quality of life particularly where there is an attitude of respect and care, together with a concern about the well-being of the animal. Some human/animal relationships undermine our quality of life, if, for instance, we engage in cruel practices. We are moral beings and hence we are affected by judgements of immorality. This can extend to an ethical concern about living in a society that condones animal cruelty even if we are not directly responsible for it. When, for example, the nature and extent of factory farming is revealed, many people find that their participation in these practices through the consumption of meat is intolerable. One of the hidden pockets of animal cruelty in Western culture is in the scientific laboratories that use animals in experiments.

In a recent article Jasmijn de Boo and Andrew Knight cite the latest worldwide estimated figures on animal use in toxicity testing, biomedical research and education as being more than 58 million "living non-human vertebrates" (De Boo & Knight 2008). They refer to survey data which shows that within the government, academic and commercial sectors there is considerable resistance to using available replacement technologies. Other surveys undertaken in the USA have revealed a widescale non-compliance to the *Animal Welfare Act*

requirement on using alternatives; in particular an "inadequate consideration of alternatives" and "unnecessary experimental duplication" (De Boo & Knight 2008, p.111). Both the extraordinarily high figures of animal use and these survey results, "demonstrate marked and widespread deficiencies in awareness of the potential and availability of non-animal methods" (De Boo & Knight 2008, p.112).

Currently there are about 6 million animals used in experiments each year in Australia (Singer 2009). The animals used include horses, cows, mice, rabbits, dogs, monkeys, chickens, sheep, rats, guinea pigs and dunnarts. While there is an attempt in some cases to 'enrich' the caged environment, e.g. with toys and music, the animals are quite simply in gaol. They are often over-crowded, or the reverse – stripped of any social contact with their kind. They never see the sun. Facilities are hidden so that they don't become the targets of activists. While there is an attempt by some researchers in some experiments to use fewer animals than previously, with the rising interest in genetic engineering, an increase in the total number of animals used is predicted. Scientific research and teaching has an entrenched culture of using 'lab animals' as a source of authority and proof. As well, secrecy about, and the scale of, animal use is heightened by commercial interests which insist on confidentiality, so that many experiments are repeated over and over, around the world.

Animal experimentation, in Australia, does not operate in an entirely unregulated environment. The principle of the 3Rs – Replacement, Reduction and Refinement – developed by W.M.S. (Bill) Russell and R.L. Birch in 1959 (Russell and Birch 1959) informs various laws, codes and committee briefs. However, as in all relationships between ethics and social regulatory frameworks, the way in which these principles are enacted is highly variable and subject to cultural influences and changing attitudes. The reliance on laboratory animals for science and medicine can be challenged not only on the grounds of changing social attitudes to its acceptability, but also on the basis of rapidly developing new technologies that can deliver alternative or replacement approaches. The Replace Animals in Australian Testing (RAAT) project is a partnership between two researchers in the Faculty of Arts at the University of Wollongong: Denise Russell, a philosopher with a background in ethics; and Melissa Boyde, a researcher in the fields of animal studies and literary and visual culture. They share a commitment to animal welfare and rights. In devising the RAAT initiative they decided to address the issue of replacement of animals in scientific and medical research – which was specifically informed by Russell's experience on the University of Sydney Animal Ethics Committee.

Background

For many years Russell was concerned with the treatment of animals in factory farming and zoos. She was concerned too about animal experimentation but found it difficult to find out what was happening in this area in Australia. As a lecturer in the Philosophy Department at the University of Sydney in the 1980s she began courses entitled 'Humanity and Animality', examining the attempts made to distinguish humans from animals and also encompassing animal ethics. She sought out sources of information on animal experimentation and was appalled at what she found.

Russell was asked to become an independent member of the Animal Ethics Committee at the University of Sydney in 1994, and she joined in the belief that she could find out more about animal experimentation and possibly help some animals. She discovered that there was no possibility of debating ethical issues beyond questions concerning the number of animals

used and whether they could be anaesthetised or not. She describes some of her experiences while serving on that Ethics committee:

> There was never any discussion about whether the value of the possible experimental outcome justified the harm done to animals in the experiments. I tried to get such a discussion going concerning experiments with dogs where they were given random electric shocks, appeared to just give up on life, and refuse to eat. This was put forward as a model of anorexia nervosa in humans. One of the committee members said to me: "if you object to this what will you do with my research proposal which is coming up at the next meeting on the same line of research. Would you object to that too?" (said with a laugh). I said "yes". The chairperson then told me there was no ground for objection as this was a reputable area of research because other people had published papers about it. I wondered then whether the job of the Ethics Committee was just to rubber-stamp the status quo. In fact in the years since the committee has been meeting no research proposal had ever been rejected, though some had been sent back for modification.
>
> The researchers were required to note whether the proposed experiment was useful for humans or not. Some experimenters ticked a 'yes' box when asked if the experiment was useful to humans when it quite clearly was not, e.g. one research project concerned a beak disease in parrots. When I objected that the responses are often put down in a cynical or jocular vein I was told by the Chair: "there is a need to maintain a sense of perspective in all matters".
>
> I was deeply shocked by my experience on this committee. Over the years since that time I have discussed various Animal Ethics Committees with other independent members (often philosophers) and members from animal protection organisations. The situation has not changed. Research proposals are not rejected outright, and although the scientists may be asked to trim the edges, there is no discussion of non-animal alternatives.
>
> Members are required to sign a confidentiality agreement so that the general public is kept in the dark about how many experiments are conducted, what animals are used, how they are sourced, the pain and distress inflicted on research animals, the number of animal deaths and so on. There is little or no monitoring of research. The overseeing committees are called 'Ethics Committees' and so it sounds as though any issues that may be ethically problematic would be dealt with, but from my experience, and the experience of my colleagues on Ethics Committees at other Australian universities, this is most definitely not the case.

The rules

Scientific and medical research using animals in Australia is regulated by the Australian Government National Health and Medical Research Council: *Australian code of practice for the care and use of animals for scientific purposes (NHMRC Code)* (National Health and Medical Research Council 2004).

One of the purposes of the Code is:

> To promote the development and use of techniques that replace the use of animals in scientific and teaching activities *(*NHMRC Code p.1).

One of the general principles of the Code is:

> Replacement Clause 1.8 Techniques that totally or partially replace the use of animals for scientific purposes must be sought and used wherever possible (National Health and Medical Research Council 2004 p.6).

Institutions that use animals for scientific reasons are required to establish an Animal Ethics Committee (AEC) directly responsible to the governing body of the institution. This committee is supposed to ensure, on behalf of the institution, that all care and use of the animals is conducted in compliance with the Code, including applying the Replacement principle. The AEC receives applications to conduct research and in their terms of reference in the Code is the stated aim to:

> approve only those studies for which animals are essential and justified and which conform to the requirements of the Code. This should take into consideration factors including ethics, the impact on the animal or animals and the anticipated scientific or educational value (National Health and Medical Research Council 2004 p.10).

Researchers are required to fill out a proposal form, including a section on Replacement, which should provide an explanation of why animals are needed for the project, including:

- a list of any potential alternatives to animal use
- whether any of these alternatives would be used, and if not
- why alternatives are unsuitable (National Health and Medical Research Council 2004 p.15).

When planning a project, and before submitting a proposal to the AEC, researchers are required to consider "can the aims be achieved without using animals?" (National Health and Medical Research Council 2004 p.22). The "Guidelines to Promote the Wellbeing of Animals Used for Scientific Purposes" were published in 2008 (National Health and Medical Research Council 2008) to be used in conjunction with the Code. Like the Code the guidelines clearly state that:

> if a viable alternative method exists that would partly or wholly replace the use of animals in a project, the Code requires investigators to use that alternative. Examples of alternative methods include in vitro techniques and computer models (National Health and Medical Research Council 2008 p.4).

The first point listed in the "Checklist for Promoting Animal Wellbeing" is the planning requirement that the researchers "determine whether alternative, non-animal techniques could be used" (National Health and Medical Research Council 2008 p.49).

The problem of animal experimentation is not so much that the regulations and guidelines are weak, rather it is that they are not carried through into practice. In his summary of the Code and state and territory laws relating to the use of animals in research and teaching, Malcolm Caulfield concludes that "the regulation and oversight of animal welfare in research and teaching is fragmented and poorly coordinated" (Caulfield 2008, p.162). He suggests the need for national laws to create "uniformity regarding implementation and enforcement" (Caulfield 2008 p.162), and he also points out that at present the Guidelines "will not have legal effect (for example, unless they are picked up by references in the relevant State and Territory legislation)" (Caulfield 2008 p.161). In addition, he suggests the need for national

reporting of statistics since currently "there is no centralised agency responsible for collating and publishing data on animal use in research and teaching" (Caulfield 2008 p.161).

The latest (2007-2008) annual report of the NSW Department of Primary Industries Animal Research Review Panel (NSW Department of Primary Industries, 2009) does not provide total figures for the use of animals in research in the state of NSW but from our calculations (based on the DPI's Animal Research Review Panel's figures) it appears that the approximate total number of animals used in research in that period is 8.5 million.[1] This figure is broken into the categories of purpose of use and type of procedure.

Category 1 *Observation involving minor interference* accounts for 7.7 million animals. This figure includes observation of free-living animals in the wild such as birds. Deducting the total number of animals in this category leaves approximately 800,000 animals used in experiments in the remaining categories.

The following provides approximate figures of animal use in each category:

Category 2 *Animal unconscious without recovery* totals approximately 130,000 animals including 6,120 dogs, 439 cattle, 57 horses, 749 pigs and 5 marmosets.

Category 3 *Minor conscious intervention* uses 458,249 animals including sheep, mice, poultry, rats, rabbits, horses, goats and cattle.

Category 4 *Minor surgery with recovery* uses 24,236 animals including horses, pigs, sheep, mice and native captive animals.

Category 5 *Major surgery with recovery* uses 12,482 including cats, sheep, baboons, pigs and mice.

Category 6 *Minor physiological challenge* uses 101,864 animals including poultry, dogs, sheep and mice.

Category 7 *Major physiological challenge* uses 16,017 animals including rats, mice, cattle, poultry, horses, sheep and rabbits.

Category 8 *Death as an endpoint* uses 26,317 animals including mice, rats, sheep, rabbits, native wild and captive animals and deer.

Category 9 *Production of genetically modified animals* uses a total of 4,374 animals – all mice.

The figures can be broken down into further categories of purpose such as Research – Human or Animal Biology and Research – Environmental Study. The Education category shows a very high use of animals – over 1.1 million animals. The majority of these animals were used in Category 1 and include native mammals, exotic feral animals, birds, domestic animals and so-called laboratory mammals. But there are also significant numbers of animals used in Categories 2-6.

Two recent examples of animals used for teaching purposes indicate that some of the animals used were in experiments that were unnecessary because replacement technology was available and/or the experiments were not vocationally necessary.

According to the Monash University student-developed website *Monash Kills* (http://www.monashkills.org/site/) "behind closed doors at Monash University, students are being instructed that cruel treatment of animals is just routine lab work. The *Monash Kills*

[1] This figure includes animal re-use so one animal can be counted more than once (NSW Department of Primary Industries, May 2009, p.31).

campaign has secretly filmed the shocking mistreatment of animals by staff and students at Australia's largest university".
The website, created by concerned students, reports that:

> Undergraduate science students are not training to be vets or surgeons. But in a lab class, physiology students perform throat dissections on live rabbits. These thinking, sentient animals are anaesthetised and tied down by their teeth and limbs to a steel slab. Undergraduate students, with no experience in surgical technique, are instructed to cut open the rabbits' throats using unsterilised instruments. Upon exposing the throat cavity, students perform procedures to measure the animals' heart rate and pulse. They administer intravenous noradrenaline to speed up the rabbits' hearts, and glyceryl trinitrate to lower blood pressure. Our footage shows a rabbit breathing faster in response to drugs administered through their throat. When the students leave to get a snack after class, these defenseless animals are killed and thrown into a plastic garbage bin … Professor RH Day (Chair of the Monash Animal Welfare Committee) admits that there are humane non-animal alternatives available to these students which do not disadvantage them in any way.

As a direct result of this student-led campaign Monash University announced that live rabbit dissections would not take place in 2009.

Another example of the unnecessary use of animals comes from Jacqueline Dalziell, Project Co-ordinator at Animal Liberation's Sydney office (2009). Dalziell was contacted by a concerned 2nd year psychology student at the University of Sydney in regards to the 'meaningless use of animals' in her course. Dalziell accompanied her to one tutorial, called 'Brain and Behaviour'. The tutorial consisted of one rat per 2 students, the rats being encased in plastic observation cages. Half the rats were given sucrose water (10% sugar and water) and the other half Tooheys Old beer; they had been deprived of water for over a day to provoke them to drink unusual substances which they normally would not. The class consisted of observing whether the rats would realise that if they pressed on the lever, they would receive either sucrose water or beer as a result. There were no conclusive trends at the end of the tutorial to point to whether the rats preferred one drink over the other, and the purpose of the experiment or the data was not touched upon. Most of the class engaged in jokes about the drunk rats and did not take the class seriously, nor did they handle the rats properly. The rats had been used in other experiments that week, and were returned to cages which housed six large rats each. According to Dalziell the rats were to be used in one or more further experiments before being killed.

These case studies and the figures from the NSW DPI figures strongly indicate that it may now be the time to reconsider if the 3Rs (Replacement, Reduction and Refinement) is the best philosophical model for the protection of animals in the current environment of medical and scientific research and university teaching.

The RAAT Symposium

In 2008 Boyde and Russell held a Symposium at the University of Sydney to discuss what could be done. They created a website to act as an information base on alternatives to using animals in Australia. For the Symposium and the website they received support from the Australian Association of Humane Research (AAHR), Medical Advances Without Animals (MAWA), the Don Chipp Foundation and the University of Wollongong.

Thirty animal advocates, lawyers, researchers and philosophers known to share an interest in this area were invited and asked to direct their attention to two questions:

1. How to get over the impediments to using alternatives to animals in scientific and medical research?
2. What practical strategies can be used to promote alternatives to using animals in scientific and medical research?

The question of impediments to using alternatives highlighted several key areas of concern:

Legal issues

There is a lack of national consistency in the law, including a lack of consistency in the definition of 'animal'. In the Symposium, Jason Grossman, an ethics philosopher and at the time a member of the NSW Department of Primary Industries Animal Research Review panel, pointed out that:

> all states and territories have an act which covers animal welfare or prevention of cruelty. Animal research is also covered through these acts, but in various and inconsistent ways. The great variations in different State laws means that in some cases wildlife research is quite heavily regulated, for example in NSW where the use of animals in education is also regulated, but in other states it is not (Grossman 2008).

Katrina Sharman, Corporate Counsel for 'Voiceless', the fund for animals, outlined the legal impediments to the protection of animals used in experiments:

> Arguably the greatest legal issue is the classification of animals as property. This means that they are entirely at the mercy of humans with no right to life, freedom or bodily integrity. We can do what we like to them, subject to animal welfare laws. But the law is a shield for the use of animals for scientific purposes – for those who want to burn, gas, mutilate, infect and poison animals, provided such acts can be justified and conform to animal welfare laws. Although such acts constitute criminal offences elsewhere, the law provides a 'get out of gaol free card' for animal researchers (Sharman 2008).

The other members of the legal panel pointed out that the widely-held belief that there is an actual legal requirement to use animal models to get research approved or commercialised is a myth. Consideration of the current law shows that there are no legal impediments to protecting animals by using alternatives.

Problems in functioning of the AECs

There is a (reasonable) assumption by some members of the public that because animal research is regulated and that ethics committees exist that any ethical concerns they may have are addressed adequately. However, there are inherent weaknesses in Animal Ethics Committees, the bodies designed to implement the Code of Practice. These include, but are not limited to, issues such as confidentiality agreements which create a major lack of transparency. In many reported cases it can also be difficult for the animal welfare representatives or independent members on the committees to get an understandable translation of the scientific protocol under discussion. There is also a lack of adequate enforcement systems for committee decisions. A further major issue reported from experience on ethics committees is the fact that ethical debate does not take place and that

instead the focus is on procedure. There is no real possibility of challenging decisions on ethical grounds.

At the Symposium the Executive Director of Animals Australia, Glenys Ooyges, provided insights from her experience serving on a number of ethics committees:

> Clearly the directions of the Code are quite good and meet broad community expectations, despite a few weakly worded points. But of concern is the rising number of animals being used in research. Ethics committees operate on the assumption that the research using animals will go ahead unless there is a very strong reason to prevent it – the decision-making process of ethics committees is back to front (Ooyges 2008).

It is clear that the fundamental issue is one of social change: the culture which assumes that animal experimentation is justified for almost any scientific purpose and which allows animals to be regarded as property must be reviewed.

Practical strategies

From the second question – practical strategies to promote alternatives – several ideas emerged:

Information resources

- make information on alternatives available to ethics committees
- implement a system where researchers and AECs are notified when alternatives become available
- build up information on alternatives, e.g. through the RAAT website: http://www.uow.edu.au/arts/research/raat, MAWA initiatives, the AAHR information bank, and the DPI database on potential alternatives
- create a centre on alternatives to research and disseminate findings, and provide information on funding options, prizes etc.

Ethics committees' procedures and processes

- work on strengthening the Code so that more account must be taken of alternatives in protocols. Reverse the assumption in the Code that animals are to be used. Mandate the use of non-animal models in some testing
- enhance the transparency of decisions
- develop concrete ways to work through ethical issues so that low-value research can be rejected
- allow committee members to get advice about protocols
- mount test cases to challenge the validity of choice about not using alternatives.

Educator/student/emerging researcher awareness

- help undergraduate students to object to animal experimentation in their courses by providing information on available alternatives
- develop presentations for incoming doctoral students in science and medicine to raise their awareness of ethical issues
- provide information for researchers to consider alternatives
- work for the elimination of all use of animals in teaching (except for very clear vocational needs). There is no national uniform approach to this.

Legal

- lobby for national legal coverage of animal welfare and animal interests and a legislative review of the law in relation to animals. Standardise the definition of 'animal' across states and territories. Reject the notion of animals as property
- use freedom of information to find out about committees' deliberations
- create a tax on animals used in research which could be used to develop alternatives.

Network for advocacy

- foster dialogue between the community and the research community, including using the media
- publicise test cases and articles on alternatives which could then lead into public meetings
- form links between the various groups representing animal interests to develop joint campaigns
- build formal and informal networks/partnerships between groups representing animal interests, government representatives and members of the research community.

Initiatives since the Symposium

In 2009/10 colleagues from the RAAT Symposium have developed some significant initiatives and changes:

- Dr Malcolm France, Head of Laboratory Animal Services at the University of Sydney, reports that the University of Sydney is significantly upgrading the resourcing of its Animal Ethics office. This includes creating three new positions: a veterinarian, a person with technical experience in animal ethics, and a Director of Research Integrity. An important role of the members of this new team will be educating researchers and AEC members to help ensure the effective implementation of the Code of Practice. Another change is the introduction of shorter terms for AEC members since membership of the Committee is seen as an important way of educating all stakeholders in the animal ethics arena. AEC meetings will also be attended by a total of five veterinarians (the Code requires only one vet to be on an AEC). In addition, the University is offering a prize to the researcher whose work has shown the most potential to replace or reduce animal use (France 2009).

- Medical Advances Without Animals (the MAWA Trust) announced three year funding for a Senior Research Fellow to assist in the establishment of the Australian Centre for Alternatives to Animal Research (ACAAR) at the Australian National University (ANU). The aim of ACAAR is to "facilitates the development and utilisation of non-animal based experimental methodologies to replace the use of animals in medical research" (MAWA 2010). MAWA continues to offer two Doctoral Research scholarships each year, a number of Honours Research scholarships (which includes financial support to the host laboratory for the student's research project), other Research grants and conference scholarships. A current recipient of MAWA funding, Dr Brett Lidbury, argues that "the culture has just become obsessed with the mouse model, or the rat model, or whatever animal, and with the modern pressures of research, of getting funding, of getting papers published, there just isn't the latitude to try new things" (*The Newcastle Herald*, July 18, 2009, p.A7). Lidbury's MAWA-funded research at the University of Canberra, in conjunction with Canberra Hospital, will mine existing pathology data held by the hospital with the view of future access to patient's blood samples for detailed genetic research on predisposition to certain diseases – "rather than doing that in a mouse we are going to start profiling humans" (*The Newcastle Herald*, July 18, 2009, p.A7).

RAAT

Throughout 2009/10 we informed animal protection organisations throughout Australia about the project and as a result have now linked many of these organisations to the RAAT website. As well we notified all Animal Ethics Committees in universities about the existence of the website and received positive responses from several including the University of Melbourne, Edith Cowan University, the Queensland University of Technology, La Trobe University and the ANU. We were approached by the media for interviews and information after the release of the latest Animal Research Review Panel report. These media reports have led to enquiries from the public and from medical students who are concerned about the number of animals used in research in Australia. We have also presented on the topic at conferences and in the *Festival of Dangerous Ideas* at the Sydney Opera House.

We envisage that our work will continue into the future. The RAAT website (http://www.uow.edu.au/arts/research/raat) will be regularly updated and we will continue to foster a network of concerned people to push for alternatives in various ways.

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CHAPTER 4

A golden garment from ancient Cyprus? Identifying new ways of looking at the past through a preliminary report of textile fragments from the Pafos 'Erotes' Sarcophagus

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Keywords
Textiles, Mediterranean archaeology, microscopic analysis, Cyprus, funerary material culture

Abstract
In 2001 Eustathios Raptou (Director of the Pafos Museum, Cyprus) excavated a notable marble 2nd century sarcophagus, carved with *erotes*, or cherubs. Remarkably the sarcophagus contained textile fragments which appeared to be traces of a gold and purple shroud that had covered the head and shoulders of the deceased. After examining the fragments in the Pafos Museum in 2008, Diana Wood Conroy applied to the Department of Antiquities in Nicosia for an export licence so that further analysis could be carried out at the University of Wollongong. This report traces some of the findings of stereomicroscope and electron microscope analysis of samples of the fibres and sediments from the sarcophagus, which included gold, silk and bone. The structure of the gold thread, once twisted around a core thread, and the identification of silk fibres indicate a high-ranking burial. The discovery of microfossils within the sample placed the archaeological material in the wider context of the physical environment. This study briefly summarises literary and archaeological evidence for gold fabrics and purple-red dyes, and relates the Cyprus gold and silk fabric to ancient trade routes. Many questions remain about the dyes used, about weaving and dye production workshops in Greco-Roman Cyprus, and about the profile and origin of the gold.

This paper shares information, ideas and expertise across creative arts, archaeology and science, developing new networks to provide innovative perspectives on ancient life for scholars and museum audiences.

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Prelude
Archaeologists and scientists in Australia who investigate the ancient past of Cyprus in the Mediterranean may seem unlikely to offer ideas of social innovation and renewal. Yet the

past is as open to fresh interpretations as the present. Developments in archaeological theory in the post-structuralist phase of late 20th century thought allow multiple readings of the past, and an acknowledgement that the past itself changes according to the tenets of the present. So Ian Hodder, under the tenets of post-structuralism, as a post-processualist archaeologist, writes:

> The meaning of an object does not lie within that object but within its reading, that is in the link that is made between that object and other objects, words and concepts. As a result the meaning of an object is never static and its reading is never finished. It is always open to new interpretation (Hodder 1989, p.64).

Both the Department of Archaeology and the closely associated study collection in the Nicholson Museum at the University of Sydney have been a focus for Cypriot archaeology, and this paper was developed under the aegis of the Pafos Theatre Excavation led by Professor Richard Green, commencing in Cyprus in 1995 and continuing in 2009. The Nicholson Museum's changing trajectory of display demonstrates that the museum itself can be regarded as an artefact which changes with the different imperatives of history. Begun with the sculptures, funerary relics and ceramics collected by Sir Charles Nicholson in the 1840s in Egypt and Greece, it is one of the earliest museums in the southern hemisphere. In the construction of the 19th century display textiles played a small role because of their essential transience in the archaeological record. This absence was aided by patriarchal traditions of classical archaeology that did not 'see' textiles as significant, reflecting the unconscious relegation of textiles as a domestic and feminine activity in the minds of (white, mostly male) archaeologists as an activity that belonged to a feminine space.

Within the field of contemporary archaeology a plurality of 'readings' is advocated. Bjornar Olsen, a feminist archaeologist, wrestled with the relativist dilemma in discussing the post-structuralist readings:

> When I argue for a certain reading of the past I have to realize my own position as historically and culturally situated, that my struggle for an alternative view of the past is related to political and social values in a present academic sphere of western capitalist society and has no automatic relevance outside it (Olsen 1991, p.202).

The momentum of late 20th century theories has changed the seemingly simple investigation of an object in a museum to an action that is a theoretical crossing-place for a number of systems. The meaning of an object never rests in a particular time and place, is never static, but instead is continually open to reinterpretation by the changing viewer, affected by the present context of ideas. As a young woman working in museums and on sites in Europe as an archaeological illustrator Diana Wood Conroy used to ask ,while numbering and drawing objects; what might these objects say if given permission to speak? The opportunity to look at the overlooked textile fragments in museums through the enlarged lenses of microscopes and chemical analysis has indeed given a different voice to ancient cloth through scholars such as Magareta Gleba sifting through museum holdings in Italy and finding a new wealth of knowledge (see Gillis & Nosch 2007;Gleba 2008a and 2008b).

The impetus to work with textiles as a key to unlocking gender, power and ceremony in older societies has come from Professor Wood Conroy's discipline as a tapestry weaver, leading to her understanding of the nuances of material and thread. Dr Adriana García's main research area encompasses microfossils, allowing her to interpret the views through the microscope.

This research combines both the authors' expertise to provide a glimpse into the material evidence and social resonance of ancient textiles. The focus of this paper is the archaeological examination of the textile sample, and its structure and materials in the broad historical context of 2nd century Roman society. Due to new developments in museum interactivity, the processes of analysis and discovery can now be experienced by museum viewers through a digital interface.

The discovery

Remnants of very fine gold thread and reddish fibres were found amongst bone fragments in the 'pillow' end of the interior of the Pafos marble sarcophagus in 2001. The placement of the threads suggested a cloth laid over the upper part of the body. The excavator, Dr Eustathios Raptou, found that the sarcophagus had been looted in antiquity, leaving only one jewel and a finial (an ornamental metal top for a small rod) from what must have been rich funerary goods. The textile fragments demonstrated the opulence of the burial, but because of their very fragmentary condition, they needed microscopic investigation to place them in an accurate context.

After examining the fragments in the Pafos Museum in 2008, Diana Wood Conroy applied to the Department of Antiquities of the Cyprus Government in Nicosia for an export licence to take small samples of the mixed gold thread, reddish fibre, bone and dust residues to the University of Wollongong in Australia for analysis using a stereo microscope and a scanning electron microscope.[1]

At present, little is known of Hellenistic to Late Roman textiles from excavations in Cyprus, although the island was famed in historical times for its textile crafts. In her invaluable overview and catalogue of known gold fabrics from the Mediterranean, Margarita Gleba found no examples from Cyprus, making the discovery of the Pafos gold fragments significant (Gleba 2008a, pp.11, 69, 70-75; Gleba 2008b, pp.80-82). In a discussion of textile conservation, Orlovsky and Trupin have remarked that the archaeologist can feel awe at the survival of such rare fragments, such as these remarkable traces from the interior of an outstanding marble sarcophagus (Orlovsky & Trupin 1993, p.110). As a weaver myself, it is obvious that the level of skill needed to produce the extremely fine threads demonstrated in the gold textile would be inaccessible to most contemporary western hand weavers. The fragments in the Pafos sarcophagus may offer a compelling clue to the sophisticated and highly developed textile and funerary traditions in the 2nd century, a time that Edward Gibbon has described as "the period in the history of the world during which the human race was most happy and prosperous"[2] in his vast chronicle *History of the decline and fall of the Roman Empire* (quote found through http://www.his.com/~z/gibbon.html#1overview).

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[1]The following acknowledgements come from Diana Wood Conroy who initiated the analysis of the ancient fabric:
I appreciate the enthusiasm and interest of Dr Raptou for inviting me to investigate the textile fragments from the Pafos sarcophagus. I would like to acknowledge gratefully the help of Dr Maria Hadjikosta, Dr Marina Igoumenidou, Dr Pavlos Flourentzos and Ms Eutychia Zachariou-Kaila in the Department of Antiquities for expediting the export licence to Australia. The fragments arrived in Sydney in June 2008, thanks to the consistent and timely help of Mr Garth Hunt, the then Australian High Commissioner to Cyprus,. I thank the University of Wollongong for essential research funding for the analysis process. Vital technical assistance was provided by Mr Nicholas Mackie, Professional Officer, Electron Microscope Laboratory, School of Materials Engineering at UOW. I would also like to thank Anders Hallan and Tony Nicholas, PhD candidates at the School of Earth and Environmental Sciences, as well as Jade Markham and Aaron Hull in the Faculty of Creative Arts. Both Emeritus Professor Richard Green and Dr Craig Barker from the University of Sydney gave me excellent scholarly advice.

[2] "If a man were called to fix the period in the history of the world, during which the condition of the human race was most happy and prosperous, he would, without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus." Chapter 3, Edward Gibbon (http://www.his.com/~z/gibbon.html#1overview)

Description and dimensions
Tiny threads of gold, some no more than 1 mm long, were scattered through the bone, dust and purple-red organic material collected from the interior of the sarcophagus. The combined material filled a cardboard box 30 cm x15 cm x 8 cm in the Pafos Museum. Up to ten small sections of gold fabric were still intact, each no more than 15 mm x 10 mm. These were not flat but formed clumps embedded in bone. Four pieces less than 10 mm x 10 mm were selected as samples for microscopy. One piece 5 mm x 5 mm contained dark-coloured threads with gold threads loosely attached. The combined samples weighed 2 grams .Each thread consisted of a flat ribbon of gold twisted around a silk core, about 0.175 mm – 0.2 mm wide x 0.01 mm thick (Figures 2, 3, 5, 6, 7). Very small pieces of silk thread were found throughout the samples, approximately 0.01 mm in diameter (Figures 4, 5, 12 and 13).

Microscopic methods
The sarcophagus samples were first observed and photographed using a stereo microscope (Leica MZ18A) with a maximum magnification of 200X. Then some sections of the fabric and surrounding particles were separated using a fine brush and mounted on little stubs 'glued' with a special tape for observation/illustration using a scanning electron microscope (JEOL 6490LA). The samples used for the scanning electron microscope (SEM) images were gold coated, while the samples analysed using the attached energy dispersal spectroscopy (EDS) were carbon coated in order to achieve an accurate peak for gold.

The textile archaeologist John Peter Wild has pointed out that SEM has opened up a new world of material detail, enabling the accurate identification of the different characters of linen, wool and silk fibre (Wild 2007, p.3). For example, in a study of a rare 5th century BC cloth from Kalyvia, Attica, the archaeologists Moulherat and Spantidaki showed that the material was very fine linen with the presence of silk. Their chromatogram also showed evidence of purple dye from the *Murex* sp shellfish (Moulherat & Spantidaki 2007, pp.164-5).

Figures 2, 3 and 4 show details of the sarcophagus fabric in the stereo microscope magnified 40X, and Figures 4 and 5 demonstrate the key sites in the sample for the EDS analysis comprising gold, bone and silk thread.

Biological evidence
An unexpected consequence of putting the sample of material under the microscope was the discovery of small marine organisms in the material collected from the sarcophagus (Figures 8 and 9). These remains of marine organisms were found when the debris surrounding the pieces of silk, gold, bones and marble sediments were observed using a stereomicroscope. The microfossils, Foraminiferida (unicellular marine organisms that produce a calcareous shell), segments of Corallinaceae (calcareous red Algae), and the spines of Echinoderms were collected using a fine brush. The specimens were not very well-preserved, which masked some of the useful identification characteristics, especially for the foraminifers. The reworking and external growths of calcareous materials on the Foraminiferida indicated that they probably lived in seas older than those from the time when the burial was performed. Three forms of Foraminiferida were recognized: one specimen of *Triloculina*? sp., two specimens probably belonging to Rotaliina (both benthic, living on the sediments), and a planktonic species having very globular chambers. The planktic's characteristics indicated,

most probably, a Neogene age (about 2-25 million years ago). Together with the red Algae and Echinoderm fragments, the association suggests an environment of shallow seas, apart from the presence of the planktic species that usually live floating in deeper waters. However, these could have been carried close to the shore by a storm. It seems likely that the organisms were present in the sediments where the sarcophagus was buried.

Foraminifera in particular are very good indicators of age and environment within the sediments bearing them, although in this case we do not have the evidence necessary for a more accurate reconstruction. More scientific testing would be necessary, for example, the provenance and geology of the sediments associated with the burial. The presence of the microfossils in the samples from the interior of the sarcophagus can give tantalising clues to a larger picture.

Condition of materials

The condition of the fabric in the sarcophagus burial had deteriorated to around ten small sections still adhering together which totalled less than a centimetre square. Part of the fabric was an organic fibre, identified as silk that had decayed, leaving only occasional threads of a purple-red colour within a maze of gold threads (Figures 1 and 3). It is well-known that the existence of metal helps to preserve the shape of fibre that has disintegrated. In the clammy soils of Cyprus ancient textiles rarely survive, and are preserved as 'pseudomorphs' in bronze objects, in which fabric was once wrapped around metal.

This phenomenon was described in relation to a piece of linen fabric recovered in Pafos in the House of Dionysios (Conroy 2000). In connection with Lydian textiles, Greenewalt and Majewski commented that knowledge of many ancient textiles depends on the transformations of mineral deposits on metal objects where textile fibres in contact with metal surfaces have been replaced by metal salts during burial in the soil (Greenewalt & Majewski 1980, p.138). Evidence from graves of linen cloth loosely wrapped around a bronze dagger, and knife blades in the Cyprus Museum are documented from Early and Middle Cypriot periods (Pieridou 1967, p.27). Paul Astrom provided a list of such cloth fragments from the Early Cypriot Bronze Age to the Iron Age from burial contexts (Astrom 1967, pp.11-114).

In the case of the Pafos sarcophagus fragments, it appears that the presence of bone has allowed the consolidation of small pieces of the textile, so that the two substances, bone and gold fabric, are bound indissolubly together.

Materials: Gold

Specks of gold were scattered across the 'pillow' area of the sarcophagus interior, mixed with bone dust, organic material and inorganic earthy particles. The gold threads in the sample showed pieces of the silk fibres adhering to them (Figure 1). The threads that once held the fabric together in a recognisable structure of warp and weft no longer exist (Figures 2 and 3).

The EDS analyses of gold (Figures 11 and 12) show a peak for Au (gold) and a small amount of Ag (silver), which is commonly the association found. The gold from mines is commonly mixed with a small proportion of silver, evident in other examples of ancient gold (Knudsen 2007, p.104). By comparison, the EDS analysis of 'modern gold' thread showed no evidence of gold and was made of carbon with some silica. [3]

[3] Diana Wood Conroy spoke to a hand weaver of silk saris woven with gold thread at Dakshin Chitra, Chennai (Madras), India in February 2009. He told her that the gold thread he used was 90% silver and 10% gold, made around a silk core.

The structure of the gold threads is clarified in the SEM image as a flat ribbon of gold wrapped around a silk core in a Z twist, a technique still used today. If the edges are rounded as in the Pafos sample, the metal strip was probably made by rolling; if the metal strip is sharp-edged it was probably made by cutting a strip from a plate. The gold strip width is consistently 0.2 mm, and its thickness is less than 0.1 mm. There are twists in the gold strip approximately every 0.6 mm (Figure 6.).

Bone

Under the electron microscope, small fragments of possibly cranial bone within the pieces of textile were observed to have a porous aspect (Figure 12). The analysis of bone using EDS (Figure 14) shows a peak for O (oxygen), Ca (calcium), and a small peak for C (carbon) and S (sulphur), both of which are elements that are indicative of bone. Surprisingly, there are other peaks for Si (silica), Mg (magnesium), Al (aluminium), and probably Fe (iron), which can indicate the presence of clays. As it seems that such elements had merged with the bone and into the silk, is it possible that clay was used in the preparation of cosmetics? Another question is whether a dye mordant such as aluminium or iron oxide might be indicated in this analysis. Aluminium and iron are common mordants to fix the dye into the fibre in plant dyeing, such as in the common ancient dye, madder, or *Rubia tinctorum* (Karali & Megaloudi 2008, p.182). More investigation is needed into this area.

Colour and dye

A pronounced reddish-purple hue imbued the gold threads with smaller areas (3 mm in diameter) of strong vermilion red. The reddish material appeared matted beneath the tangle of gold threads (Figures 2 and 3). Some detail of striations in the red-purple fibre, consistent with rows of weaving, can be seen in Figure 4.

The purple colour from *Murex* sp. shellfish was highly ranked as a dyestuff for textiles since prehistoric times. There is abundant evidence for purple dyeing workshops using varieties of the glands of *Murex* sp. shellfish around the Mediterranean, often in conjunction with gold and silk textiles. Karali and Megaloudi have described how the most highly prized colour in antiquity, 'Tyrian' purple (from long established dye works in Tyre and Sidon), was produced through a laborious process from tiny sacks or glands in each shellfish, requiring thousands of shells to dye a metre of cloth (Karali & Megaloudi 2008, pp.182-3). A High Precision Liquid Chromatograph (not yet undertaken in the present study) can indicate the presence of shellfish components, such as the indigoid described by Moulherat and Spantidaki (2008, p.164).

The analysis of plant remains and pigment in the sarcophagus samples are not yet clearly determined. The presence of calcium, oxygen and carbon indicate that the bone penetrated the other materials in the process of decomposition. Analysis of the pigment colour in the sarcophagus fragment is presented here, but requires more investigation (Figure 13). At this stage, identification of the dye, whether of shellfish, earth or plant origin, has not been scientifically established.

Silk

Under the microscope, the thread amongst the gold and organic material was identified as silk by its ribbon-shaped filaments (Figure 15). Exactly the same structure was observed in

modern silk under the stereomicroscope. As the product of the silk caterpillar, silk thread need not be spun, but rather is constructed by winding filaments from 30-50 cocoons suspended in boiling water into one fine thread on a reel and in the reeling process the filaments bind together (Papademetriou & Papageorghiou c.1998). The multiple strands, perhaps as many as 50, formed by this reeling process are clearly seen in the SEM image of the ancient silk thread (Figures 15 and 16). The EDS analysis of silk fibre in Figure 17 shows peaks of organic components: carbon, calcium, oxygen and sulphur. As with the bone and pigment EDS analysis, we can see the interpenetration of materials in the fibre.

It is not clear whether the thread has been respun from unravelled silk imported from the silk route described below. The origin of this silk may ultimately be China, via closer centres manufacturing costly cloths, such as Antioch or Tyre (Thorley 1971).

Papademetriou and Papageorghiou explain that silk was produced in Cyprus in Byzantine times, with the industry reaching a high point in the 13th to 15th centuries. (Papademetriou & Papageorghiou c.1998). According to Rutschowskaya (1990, p.18), silk textiles appeared in large quantities in the necropolises of Akhmin and Antinopolis in Late Roman Egypt. The dead were dressed in their best clothes, which were elaborately figured and coloured. Many of the silk materials for these rich clothes were imported from Syria and further east, as a silk industry was not established in Egypt until after the Arab conquest in 641 AD. Silkworm eggs were introduced into Egypt in c.550 AD. Gold thread was used by Copts in tapestries such as the tapestry 'Judgement of Paris', measuring 17 x 15 cm, which was dated as being 4th to 5th century in Washington DC (Rutschowskaya 1990, pp.25, 112). Although later in date, such a fabric could well be analagous to the Pafos sarcophagus textile with its use of a flying shuttle technique for the gold thread details of figures against a purple ground.

Context and structure of gold and purple cloths

The most renowned surviving examples of Hellenistic Greek funerary textiles are the purple and gold cloths (41 cm x 61.5 cm x 28.5 cm) found in the small gold *larnax* from within a marble sarcophagus excavated in 1977 from the so-called 'Philip's Tomb' in Vergina in Greece, and described in detail by Manolis Andronicos. The cloths surrounded the cremated remains of a woman and the magnificent decoration of the tapestry-like fabric represented twining plant motifs within spiral meanders. Describing the circumstances of the find Andronicos wrote: "The gold, which forms the background setting off the purple decoration, was made from gold 'thread'; the purple part had disintegrated … and had coagulated into a mushy mass." (Andronicos 1993, p.192, plates 156 and 157). Because the woollen warp threads had disintegrated it was not possible to determine the structure of the gold thread, and whether it was twined around an organic core. No microscopic analysis has yet been published although the cloths have been conserved and described by D Cardon and M Flury Lemberg (cited in Gleba 2008a, p.65).

As in the much earlier Hellenistic fabric from Vergina, a close scrutiny of the sarcophagus fragments suggests that the surviving fabric is woven, rather than embroidered. The gold threads could have been inlaid over a ground of purple silk. 'Inlay' is formed with a gold thread that floats over finely woven sections of the fabric, usually in a twill weave and forming a pattern. However because of the 2nd century date it is more likely that the cloth was tapestry woven, that is, in discontinuous sections of pattern such as the Coptic roundel of the 'Judgement of Paris' with gold thread illustrated by Rutschowskaya (1990 p.112). According to JP Wild, in the late 2nd century there is hardly any evidence for inlay in Roman textiles – a

technique which developed with the new technology of the horizontal loom, with heddles to lift threads in complex patterns, rather than the earlier vertical, warp-weighted loom. Wild wrote: "All the damask silks from Late Roman burials are in 3/1 twill and all have Z spun warps, with a count of 40-50 warp threads, and 50-60 weft threads per cm" (Wild 2007, p.461). Our sample does not appear to be a damask-woven silk but the thread count accords well with the Pafos gold thread sample, which is *circa* 50 per cm.

Context of gold and purple silk cloths: historical background

According to J Thorley the peaceful reign of Augustus allowed the silk route between China and Rome to flourish, with traders supplying Roman gold and silver, glass, and coral to the east in exchange for silk, in the long route across Parthia, Bactria and Kushan. Citing ancient authors such as Pliny, Martial, Quintilian and Juvenal, Thorley described how the heavy Chinese silk cloth was completely unravelled and rewoven in famous weaving workshops in Tyre, Sidon and Berytus in Syria into a much lighter fabric often combined with gold. The main cities on the trade route were Palmyra and Dura Europus, as well as Petra, Antioch, Zeugma and Damascus (Thorley 1971, pp.71, 76-79).

To Gleba it seemed that as part of the vast and influential trajectory of the silk route from China, the arts of weaving and embroidering with gold threads passed from one great city to another, travelling as a rule westward and northward (Gleba 2008a, p.69).

Archaeological comparisons

Many traces of gold textiles have survived across the expanse of the Roman Empire from Britain in the west to Phyrygia and Lydia in the east, and especially around the Black Sea. The dead were buried in costly clothing that often included gold and silk which was dyed purple. The catalogue of gold woven cloths set out by Gleba in 2008a demonstrates the wide scope of golden fabric from burial contexts. The areas with known examples of gold textiles most relevant for the Pafos sarcophagus textile seem to be Lydia in Asia Minor (Greenewalt & Majewski 1980) and Chersonnessos on the Black Sea where Ukrainian researchers identified a two ply gold thread that may relate to thread produced in a Cypriot workshop (Gleba_2008a, p.66). Tarentum in South Italy was a production centre for purple dye, and a source of rich textiles in Hellenistic times as can be seen from elaborate Apulian vase-painting. Tyre on the coast of the Mediterranean has been suggested as another centre for both gold thread making and purple dye production. It seems likely that multiple centres of cloth production existed simultaneously over a long period.

Literary references

Because of its shining, aristocratic connotations, gold cloth has appeared in poetry and prose throughout the long history of classical literature.

Descriptions of gold clothing and cloth cited by Gleba and Thorley refer to sources from Exodus in the Old Testament (Exodus 39.3), Homer (Hom Iliad.2.530, Hom. Odyssey 14.468 -502) and Herodotus (History of the Peloponnesian War 3.47). In Roman imperial times, Tacitus, Pliny, and Suetonius speak of the emperors' gold clothing. Pliny recorded that Attalus III of Pergamum invented the practice of weaving fine strips of gold into a textile (Pliny, Naturalis Historiae xix. 4, cited by Gleba 2008a, pp.61-2). Both Vergil and Ovid refer to Phrygia in association with gold textiles (Vergil. Aeneid 3.483, Ovid Metamorphoses 6.616.)

Thieves in Apuleius' Golden Ass stole silk clothes woven with golden thread (4.7). In 169, Marcus Aurelius raised money for a war campaign by selling his wife's silk and golden clothes (Scriptores Historiae Augustae 17:4; The Deified Aurelian 29:3 and 45:2). This is a particularly interesting reference, because it is the same approximate date as the marble sarcophagus, and also because of the relationship of Marcus Aurelius to Pafos through the inscription found in the Pafos theatre (Green & Stennett 2002; Nicolaou 2003). Margarita Gleba summarised:

> From all these references it is clear that although gold could be woven alone, more frequently it was interwoven with other materials, notably purple wool and silk. This association of the most precious metal with the most expensive dye and textile fibre produced a combination of luxury materials that would have been restricted only to the richest strata of society.(Gleba 2008a, pp.61-2).

Conclusion

Although very small, the microscopic analysis of the samples from the Pafos sarcophagus gives incontrovertible evidence of a sophisticated luxury textile in the late 2nd century. This shows that Cyprus participated in the wealth of trade coming from the east. Dominic Janes demonstrated that the 'treasure society' of late antiquity invested complex meanings and symbolism in high value materials such as silk and gold, which were later adopted by Byzantine culture (Johns 2002, p.197). Purple, gold and silk fabrics continued to resonate in Cyprus as ecclesiastical vestments.

Virtually all gold textiles that survived have been found in funerary contexts, designating a wealthy family. At a time when the city of Pafos was flourishing and rich in public buildings, the person buried in the carved and decorated marble sarcophagus must have been important and high-ranking in society, and was most likely a woman (although the evidence is not conclusive). She/he was embedded in materials sourced from a vast network of trade across the known world of Europe and Asia.

Even at this tentative stage of analysis, a microscopic view, combined with knowledge of the sign of textiles, enables very tiny remnants to speak confidently in a museum context. Innovations in haptic and scanning technologies on the computer screen through an interactive wand or touch screen will soon permit the viewer to move around even a microscopic image in three dimensions, to comprehend and wonder at what was previously inaccessible and invisible.[4] The interpretation depends not only on the scholarly rigour of research but also on the viewer's breadth of reference and openness to an innovative view of the past. In placing such discoveries on view in the museum, new technologies of display can show the full detail and scope of archaeology in a social context and with a revelation of detail that would have been unimaginable to the early curators of the Nicholson Museum.

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CHAPTER 5

Collaborative Authoring of Projects in the Development and Delivery of Subjects in Transnational Programs

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Keywords
Transnational, higher education, collaborative authoring, assessment practices, systems thinking

Abstract
The purpose of this paper is to develop a conceptual model that can be used to describe the effect of team-based collaborative authoring technologies on assessment strategies used within subjects and curricula delivered in a transnational mode. Transnational programs and their related delivery and assessment practices represent a significant area of interest for higher education providers worldwide. Transnational programs provide a major stream of income at a time when government investment in the sector can be inadequate and uncertain. While international education represents a major area of growth for higher education providers, the delivery of these programs at offshore locations can be problematic. Our understanding of subject and curricula delivery offshore comes from our experience as providers of these educational services and is set against the background of a literature review in this domain.

The approach developed here employs communication and coordination theory as well as systems thinking applied to teaching and learning activities in general. This paper describes some communication flows and bottlenecks that occur between geographically distributed teaching staff and both culturally homogenous and heterogeneous student cohorts. This is a preliminary step in the theorisation and exploration of the effect of using collaborative writing technologies within transnational assessment practices. This paper demonstrates that, by adopting appropriate models of social processes, new socially innovative ways to conduct education practices can be leveraged from the application of new technical innovations (such as wikis to facilitate collaborative authoring in assessment).

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Introduction

Higher education is now a truly global industry worth in excess of $US2.2 trillion (Savage 2004). A major component of this industry is the number of students (mainly from developing countries) travelling overseas to study in countries such as the UK, the USA, Canada, New Zealand and Australia (Mazzarol & Soutar 2002). Another equally important component is the delivery of degree programs at offshore locations, which is referred to as ‘transnational education’ (Vignoli 2004). In 2007, Australian universities had more than

85,000 students enrolled in transnational education programs, a significant increase from 73,000 in 2004 (DEST 2004; AEI 2008). By 2025 it is predicted that 44% of international students enrolled at Australian universities will be studying at offshore locations – a substantial increase from the current 20% (Heffernan & Poole 2004). This rise in international student numbers can be attributed to what De Vita and Case (2003, p.384), along with others (e.g. Mathews 2002; Marginson 2003), label as the marketisation of higher education and the "competitive rush for international students and their money". Although several forces (political, economic, social/cultural, and academic) are suggested as causes for this phenomenon, the fundamental reason is supply and demand. There is a significant shortage of higher education places in many developing countries across South East Asia, China and India, and it is not likely that this shortage will be addressed in the foreseeable future (Feast & Bretag 2005; Marginson & Rhoades 2002). As demand continues and more universities become increasingly reliant on the income generated through transnational programs competition will become more intense (Johnston 2002). Under such circumstances, the innovative use of existing and new technologies may emerge as a critical factor for those universities seeking a competitive advantage in the market (Shurville, O'Grady & Mayall 2008).

The purpose of this paper is to develop a conceptual model that can be used to describe the effect of team-based collaborative authoring technologies in enhancing assessment strategies and curriculum development in the context of a transnational education program. The paper begins with a review of the issues associated with the use of current educational technologies in the context of transnational education. We then recount some experiences involved in delivering a transnational commerce degree. A major problem was identified from this research, namely the inability to effectively conduct and support collaborative group assignments. In order to understand the nature of computer-mediated collaboration – as dictated by the physical separation of learners and instructors – we explore some relevant models of computer-mediated collaboration. We then concentrate on the use of enterprise wikis as collaborative environments for project-based assessments. Finally, we use the systems thinking perspective of double looped learning described by Sterman (2000), which we rework to account for the use of enterprise wikis in the collaborative authoring of projects.

The use of technology in the delivery of transnational education programs

Transnational education programs can be delivered through a variety of formats including distance education, twinning arrangements with local partner institutions and wholly owned offshore satellite campuses. Regardless of the method of delivery, the use of information and communications technologies (ICTs) are paramount in allowing the necessary cross-border exchange of information and educational materials that need to occur between staff and between staff and students in order to make these programs function (Bradley 2005; Castle & Kelly 2004; Bates & de los Santos 1997). Innovations in these technologies have been essential for the expansion of transnational education programs as they allow institutions to more easily coordinate operations in different countries and across time zones (Ziguras 2001). In particular, the development of asynchronous learning networks (ALNs) that allow students to access and participate in the learning process at a time and in a place of their making have proved vital. Although the use of these and other existing technologies have made the flow of large quantities of information much easier, their ability to improve the educational experience of students in transnational programs remains debatable.

ICTs have effectively overcome the logistical problems associated with delivering study materials to students in transnational programs. In many transnational programs technology is

used merely as an efficient way to move information seamlessly across national borders (Shieh 2009). This narrow use for ICT detracts from the optimism that Robin Mason (1998, p. 45) held for ICT in the late 1990s, declaring that technology would result in a "re-engineering of the educational paradigm to include people from many countries, studying materials designed for a multicultural audience, using technologies which facilitate cross-cultural communications". Unfortunately, as Bradley (2005) disappointingly acknowledges, it has not led to any paradigm shifts or even any substantial change in the nature of the teaching and learning experience. Twigg (2003; 2002) argues that several large scale reviews suggest that the current use of technology is simply reinforcing traditional student-teacher relationships that are predicated on considerable autonomy for teachers and a relatively constrained experience for students. Bradley (2005) urges educators to embrace the potential stemming from the ongoing development of ICT and to adopt the technology in ways and means that contribute to the establishment of truly student-centred teaching programs.

A feature of contemporary learning designs and teaching approaches is a focus on student-centred modes of teaching and the interrelated concept of 'communities of learners' (Ramsden 1992; Oliver 2006). Fundamental to the notion of student-centred teaching is actively engaging a student in ways that encourage their own deep understanding of the learning material. This requires teaching and learning to be viewed as a cooperative exercise between the teacher and student and not as a passive, rigid process dominated by routine knowledge transmission through the direct encoding of an objective reality from a more knowledgeable teacher (Ramsden 1992). Student-centred teaching is essentially about interaction: interaction with the learning material; interaction between student and teacher; and interaction between students (Caladine 1999).

Similarly, the concept of communities of learners is founded on democratic ideals of the learning process (Schon 1983). The philosophical and epistemological foundation for these communities lies in the belief that the individual learner constructs their own sense of reality and knowledge through their interaction with the world and others in it (Shea 2006). The teacher, along with others, becomes a co-participator in the construction of knowledge. Within a community of learners the process of learning is achieved through active participation and dialogue within a social environment that provides the support that community members need (Vygotsky 1978). From this perspective, the basic unit of analysis shifts from individual cognition towards learners interacting in a group using cultural resources to construct shared understanding (Newman, Griffin & Cole 1989). With such a strong pedagogical foundation it is not surprising that building communities of learners has become a feature of many modern student-centred teaching programs. The importance in building communities of learners has been borne out in various empirical studies that demonstrate that higher levels of student satisfaction and deeper levels of learning can be achieved (see Rovai 2002 for an analysis of such studies).

In an online environment, communities of learners have been formally defined as "groups of people, connected via technology-mediated communication, who actively engage one another in collaborative, learner-centred activities to intentionally foster the creation of knowledge, while sharing a number of values and practices (Ludwig-Hardman cited in Shea 2006, p. 35). Within the literature there are various published reports of how academics have used ALNs to create communities of learners in an online environment (e.g. Pringle 2002; King 2002; McLoughlin 1999), and there is, according to Shea (2006, p. 35), a "growing consensus' that it is possible to create online learning communities. However, most of these studies have been undertaken in the context of distance education programs that are not transnational in

nature. In addition, there remains a strong body of evidence (see Pringle 2002; Rovai 2002) that supports the views expressed earlier by Bradley (2005) and by Twigg (2003; 2002) that technology has not yet delivered on any real, sustainable or widespread change in the student-teacher relationship.

In the specific context of transnational teaching programs where both physical and cultural separation become important issues, giving rise to students feeling disconnected, isolated, distracted and lacking personal attention (Besser & Donahue 1996; Twigg 1997), ICT continues to be used predominantly for the convenient delivery of teaching material. Within transnational teaching programs, ICT can provide "students with flexible access to learning experiences in terms of at least one of the following: time, place, learning style, content, assessment and pathways" (Chen 2003, p. 25). Of these areas, ICT is mainly used to simply allow students to access content when and where they choose, i.e. asynchronous learning. This is understandable in a world where students are increasingly confronted with the need to work during their study, making it essential that the programs they enrol in incorporate flexible learning options that allow them to learn at locations and at times convenient to them (Castle & Kelly 2004; Long & Hayden 2001). However, in a majority of transnational programs, technology is not being used to address issues associated with learning styles and assessment practices that can be influenced by cultural differences. In a majority of cases it is also not being used in ways and means that encourage critical components of student-centred teaching or the establishment of communities of learners, as it does not ensure the active engagement and interaction of the student with the learning material, the teacher or other students.

Experiences from practice: the delivery of a transnational Commerce degree

Many of the issues identified in the foregoing discussion have been experienced by the authors first hand as a result of involvement in the development and delivery of a transnational program in Singapore. The Faculty of Commerce at the University of Wollongong (UoW) delivers its Bachelor of Commerce through a joint venture agreement with a private education provider in Singapore. The program is delivered in the form of 'blended delivery', that is, a UoW staff member delivers 20 hours of lectures and tutorials in a one-week intensive delivery mode, and a local tutor then delivers the remaining 20 hours of lectures and tutorials with support from the Blackboard e-learning software program. Although e-learning programs such as Blackboard provide students with asynchronous access to learning materials, grading activities such as quizzes, and communication options such as discussion boards, email and chat rooms, they do not necessarily build the collaborative, culturally sensitive, socio-cognitive learning environment sought within an online learning community.

There are issues with this type of delivery model from both the staff and student perspectives. Both staff and students have commented that the one week intensive followed by ongoing communication through the e-learning program does not allow for the development of a community of learners characterised by co-participation in the learning process and the development of a shared understanding. For example, one student summarised the feelings of many of her peers in the program with the statement: "just as you start to develop an understanding of the lecturer they are back in Australia ... email is not the same as having them in the classroom". Transnational programs that rely on intensive delivery do not allow for the ongoing synchronous communication that many students desire.

Our student cohort in Singapore consisted of mature students working full time and attending lectures and tutorials after work. Thus it becomes problematic to develop group work-based assessment tasks that require students to meet frequently at a time and place that suits all group members. In addition, geographic separation makes it difficult for the lecturer to provide ongoing and timely advice to each group. As a result, group work assessment tasks often fail to achieve the learning goals set for them. For example, a frequent form of student feedback on group work assignments in this program relate to the difficulties the students have in meeting face-to-face in their groups and the need for them, as a group, to seek ongoing feedback from the lecturer via email or the discussion forum in Blackboard. A mechanism where the lecturer could monitor group work as it evolves would be a major pedagogical step forward. In other words, in an ideal situation, each group member would be able to contribute to the group project at a time and from a place convenient to them and in an environment that allows the lecturer to observe and participate in the group's ongoing workflows.

The delivery model adopted for Singapore requires the UoW lecturer and the local Singapore-based co-lecturer to consult on the development of the subject curricula and associated teaching material such as subject outlines. Both the physical and cultural distance can make this task problematic. This issue could be assisted by an approach that allows the UoW lecturer and the local Singapore lecturer to co-author curricula documents in a way that allows joint cooperation on the development of the documents.

Our experience in short has been that student-centred learning with its emphasis on building communities of learners needs to be supported by educational software that is equally flexible in allowing educators to design and develop learning experiences that meet student needs (Shurville, O'Grady & Mayall 2008). In addition, such software needs to respond to the view that knowledge is created by student interaction with the learning material, as well as with other students and the lecturer as a process of co-creation. In the context of delivering transnational programs there is a clear need for the use of technology that is capable of allowing the development of culturally responsive student experiences that generate a sense of belonging within a community of learners and which address the issue of physical separation. In the following section we explore in depth the characteristics of computer-mediated communication as well as some models of computer-mediated collaboration, and redefine a standard definition of the term used by Preece et al. (2002) to more accurately account for communication and collaboration.

Computer-mediated collaboration

Following Clarke (2007), this section describes various forms of computer-mediated communication and the degree to which these technologies can support groups who are separated by geographical distance and different time zones. There are four types of computer-mediated communication technologies: those that provide communication at the same time; at different times; at the same place; and at different places. These options are presented in the Time/space matrix in Figure 1. While web-based technologies support the asynchronous, remote communications needed by teams, they do not necessarily support this communication efficiently. The promise of wiki technologies in our domain, and of most other supporting information technology in education, is that they can support subject and curricula delivery offshore (both remote and asynchronous).

When we consider how to support communication within and between groups, we can use a framework similar to the Cooperative work framework as shown in Figure 2. In this diagram,

participants are team members, and the term artefact refers to the educational content that we want to create, manage, and assess. There are three kinds of communication commonly associated with Computer-Supported Cooperative Work or Groupware applications. Communication between participants can be used to act upon artefacts (control and feedback). Communication can also be about these artefacts (direct communication). A third kind of communication is referred to as 'feedthrough'. This occurs when a participant becomes aware of the actions of others who are adding, deleting or modifying the artefact – i.e. communicating through the artefact. Most organisations try to support team collaboration using traditional technologies like email and document repositories. Direct communication is supported by email, electronic conferences and video connections, while common understandings are supported by augmentation tools, meeting rooms, and shared work surfaces. All of these different communication modalities can be provided within a wiki environment that supports extensibility. Figure 2 shows us why most of these technologies are not successful. Email does not promote good control and feedback, while word processing technologies support only limited forms of communication about artefacts that do not scale up to large teams with a rapidly changing membership.

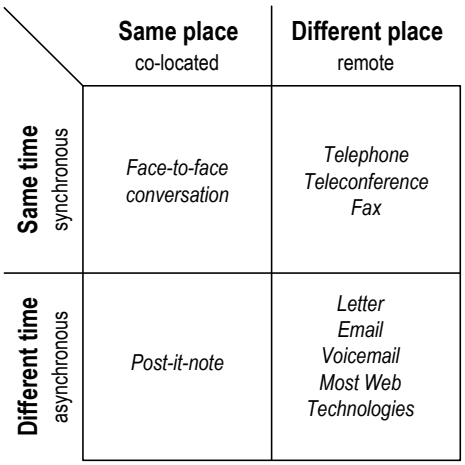

Figure 1: **Time/space matrix (Modified: Dix et al 1998, p. 465)**

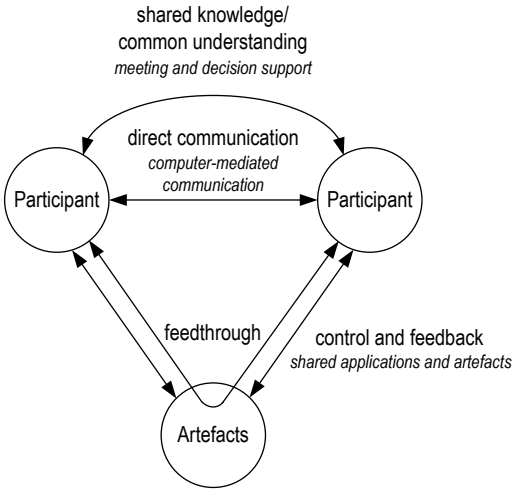

Figure 2: **Cooperative work framework (Modified: Dix et al 1998, p. 495)**

Wiki technology supports a cooperative framework and enables artefacts to be collaboratively developed, promoting shared knowledge and understanding. Control and feedback is facilitated by allowing team members to easily add notes and comments. 'Work in progress' documents can be improved and refined over time, while maintaining 'accountability' in the form of full versioning. Full versioning enables document changes to be progressively undone allowing previous versions to be recovered. This is particularly useful when teams are collaboratively developing large and complex documents. Wiki technologies can be compared with each other on the basis of the attention that designers have paid to how collaborative authorship works as a process. Despite the fact that the cooperative work framework described above is demonstrably useful, it is descriptive only and fails to provide insight into the actual nature of artefacts, the relationship between

artefacts and participants, and the relationship between participants and the organisational and institutional context in which their communication and collaboration take place.

We will now consider a more nuanced way of describing 'collaboration' in the design of computer-mediated communication technologies. In attempting to describe collaboration, Preece et al. (2002, p. 106) refers to its underlying 'social mechanisms', specifically *conversational mechanisms* that "facilitate the flow of talk and help overcome breakdowns during it", *coordination mechanisms* that "allow people to work and interact together", and *awareness mechanisms* that enable interactants to "find out what is happening, and what others are doing and conversely, to let others know what is happening". They also use an existing language-based approach to describe the conversational mechanism, in this case Conversational Analysis or CA (Sacks, Schegloff & Jefferson 1974; Sacks 1992; Schegloff & Sacks 1973; Schegloff 1997). A discussion on the nature and suitability of this theory and alternatives to it is beyond the scope of this paper, however while it is useful to apply a communication theory, a number of problems occur in adopting CA to hypermedia systems in general and to wikis in particular. We therefore advocate the use of 'communication' rather than 'conversation' when describing relevant language theory-based approaches to systems and information technologies. For example, the concepts of 'communication and coordination' have proved to be enduring and important (see Goldkuhl, Clarke & Axelsson 2005) within the information systems discipline. We retain (in a modified form) Preece et al.'s (2002) three mechanisms – a communication mechanism, a coordination mechanism, and an awareness mechanism – and associate these with the characteristics of the enterprise collaboration technology.

Enterprise wikis in assessment

The following section of this paper describes one of the most useful collaborative technologies – the wiki. We concentrate specifically on enterprise wikis that support the creation of teams, and provide some justification as to their use in assessment for the Supply Chain Management Major within our Transnational Commerce Degree. Wikis can transform the typical web user experience of passively browsing pre-existing web content into something that is active and engaging. Derived from the Hawaiian expression for 'quick', a wiki is a type of website that allows users to add, remove, or edit content (Wikipedia 2009). Normally wiki content is publicly accessible so that anyone who can read it can edit it, enabling wikis to be a potentially effective tool for open community-based collaborative authoring. The content is usually text-based with static images but some wiki systems also support other kinds of media. Once users overcome the strangeness of being active web content creators, they can help in producing collaboratively authored content that is both extensive and detailed. This is best illustrated by Wikipedia. At the time of writing this publicly available wiki exceeded 15.8 million pages in total – of which more than 2.7 million provide content pages (as distinct from opinion or commentary) – and supports more than 160,000 active users from a community exceeding 8.9 million registered users (Wikipedia 2009). Of course there are many more unregistered 'lurkers'. A wiki simplifies the process of creating HTML pages by providing the capabilities of a relatively basic – and therefore easy to learn and use – text editor, combined with a versioning feature that records changes to pages over time so that pages can be reverted to their previous states if deemed necessary. A wiki system may also include various tools designed to provide users with an easy way to monitor the constantly changing state of the wiki content as well as a place to discuss and resolve the many inevitable issues that arise when content is collaboratively authored (Clarke 2007).

Despite their potential as a collaborative authoring tool, many wiki systems are not particularly useful in pedagogical applications for the same reasons that most would not be selected for use in business applications. Most wikis – whether they are open-source, freeware, or commercial – have impediments that would preclude them from being adopted in educational or business applications. Some of these impediments include:

- they are incapable of supporting multiple teams and projects
- they are unable to support rich content
- they are not designed to be extensible (i.e. to add new features)
- they have poor integration with other applications
- they fail to support the collaborative authorship process.

We will discuss the use of one commercial enterprise strength wiki application – Atlassian Confluence – that does not suffer from these impediments. The developers of Confluence have paid particular attention to the potential for collaboration by adding appropriate enabling features that make this wiki particularly well-suited to collaborative authorship (Clarke 2007). In organisations, work groups are faced with constantly changing situations. This continuous change in the work environment affects how team members interact, collaborate, and share knowledge, and ultimately affects the progress of the project itself. As a result, individuals who are separated by geographical distance and varying time zones, and also whose skills and services are in high demand (and may therefore need to belong to multiple groups), will benefit from the support that collaborative wiki systems offer.

Enterprises wikis are useful when team composition is dynamic. Teams are often project-oriented and therefore environment-driven. The reality of most enterprise applications is that team membership is never stable, and when members are reassigned, the team can lose experience, necessitating training and orientation for new team members. Despite this volatility teams must nevertheless still achieve their goals and project deliverables. Enterprise wikis are also useful when knowledge must be shared amongst multiple groups. Specialists, whose expertise must be shared across multiple projects, will also require collaborative groupware support. They need to know specific information that quickly orients them to the current status of their assigned projects. In addition, they need to provide other team members with various deliverables, artefacts, or services that will make the teams more self-sufficient and self-reliant. This in turn enables them to concentrate on more important matters.

Having defined enterprise wikis, we now describe the delivery and assessment practices of two core modules within the Supply Chain Management Major in the UoW Transnational Commerce Degree; an introductory supply chain subject, and systems thinking and simulation. The current assessment structure for these subjects involves a mix of individual assessment (such as classroom-based tests and individual reports) with an element of group work (such as interactive ‘games’ and case study presentations in tutorials). This approach still has limitations, even though it is designed to provide a mix of activities in order to accommodate differing learning styles.. Although group-based activities such as the well-known Beer Game (Sterman 1995) have traditionally been used, and are successful to a degree, such activities are heavily dependent on the physical presence of a facilitator. There are a number of examples of these group exercises being transferred to online simulation environments (Kaminsky & Simchi-Levi 1998), but these instances have yet to reach the levels of immersion and flexibility potentially enabled by a dynamic, e-learning environment such as that offered through collaborative online authoring. These exercises are not immersive over a sustained period of time, and deliver only brief, structured feedback at pre-

determined time slots. With assessment given in a two dimensional format (a board game), students lack the opportunity to develop or acquire their 'individual space' to extend their understanding of the scenario due to time pressures. In order to complete the learning cycle, students must be given the resources (e.g. time) to develop their understanding of the environment, so that they can question their initial 'mental models' or understanding, as the assessment progresses. These issues are magnified when considering the challenges of development and assessment of transnational courses. Re-positioning assessment activities within a dynamic, less time-constrained and interactive environment, such as a wiki, provides the scope for students to "re-frame the situation and gain new understanding" (Sterman, 2000, p. 22) of the true causal relationships in a dynamic business system such as a supply chain.

The use of wiki technology provides a mechanism for encouraging student groups to develop beyond individual learning, and encourage the formation of a learning organisation structure, where opportunities are given to allow participants to fully consider the practical application of theory (Kim 1993). In this case, a virtual business environment is provided by the wiki technology for the assessment. Time is given to explore different scenarios and to act upon feedback from peer to peer in a dynamic assessment environment. With this in mind, we aim to move towards a learning organisation structure (via the introduction of collaborative authoring software), whereby the collective knowledge and understanding of the subject environment is underpinned and driven by a coalition of students as opposed to a coalition of workers/departments (Sterman 2000) within the Supply Chain Management Major. The integration of wiki technology into our transnational program will enable the application of systems thinking to influence the teaching of systems dynamics and supply chain principles. This technology allows an extension of the learning environment as a managerial field of practice (Kim 1993) by incorporating the cause and effect of participant interactions as a key element of the immersive learning process. The wiki environment allows students to follow this path, and enables the boundary of engagement and learning to develop beyond the individual, with reference to the learning cycle developed by Maani and Cavana (2007) – the strength of which is based on the fundamental structure of the Deming Cycle of Plan-Do-Check-Act (Demming 1993).

Extending this, wiki technology facilitates the process of peers challenging the ideas and mental models developed by students before they interact with the assessment. It achieves this by moving away from didactic learning and leading participants to engage in a deeper, double loop learning cycle, which is particularly important for subjects delivered in transnational modes. This in turn reduces the unequal social relation of power (where the teacher/instructor becomes another team member), and leads to a flattening of the power relation within the learning environment. Being a team member means that the instructor is inside the assignment and so advice or guidance can be provided to and from any and all team members. An enterprise wiki can be used to explore and discuss , in 'real time', non-linear problems encountered in the virtual environment. Students can thus be immersed in an online collaborative case study that requires a "reframing of a situation, a new understanding" (Sterman 2000, p. 19) of the task.

Figure 3 provides a diagrammatic representation of enterprise wiki technologies which can be used as an assessment for our Supply Chain Management Major. Learning about complex systems such as a supply chain necessarily involves coming to grips with the real world consisting of an unknown structure full of dynamic complexity. Its ambiguities, distortions, and missing feedback can lead to the creation and reinforcement of flawed mental models

about its behaviour, and the application of possibly inappropriate strategies and rules in an attempt to engage with it, therefore leading to poor decision-making and resulting in poor actions. This idealised double loop learning process is based on the work of Sterman (2000) and on a systems thinking approach to understanding how we learn about and engage with complex systems. It also explains the role that simulation plays in trying to understand this real world by building a virtual world using specialist simulation packages that enables users/learners to create a simplified model which captures the essence of the system of interest.

In Figure 3, the role that the virtual world plays in understanding the real world is to create a simplified known structure about the system, with accurate and immediate feedback and a consistent application of decision rules. The apparent paradox is that the creation of a model – necessarily a simplification of reality – nonetheless enables managers to learn about the key leverage points and dynamic behaviour of the system. Indeed, as with many subjects in technical management (including the entire Supply Chain Management Major), simulation is a requisite technique. The problem with simulation environments is that they do not support communication mechanisms, coordination mechanisms and awareness mechanisms of the kind advocated in this paper. Our solution to providing collaborative learning is to embed the simulation environment within the collaborative enterprise wiki enabling this learning process to become team-based.

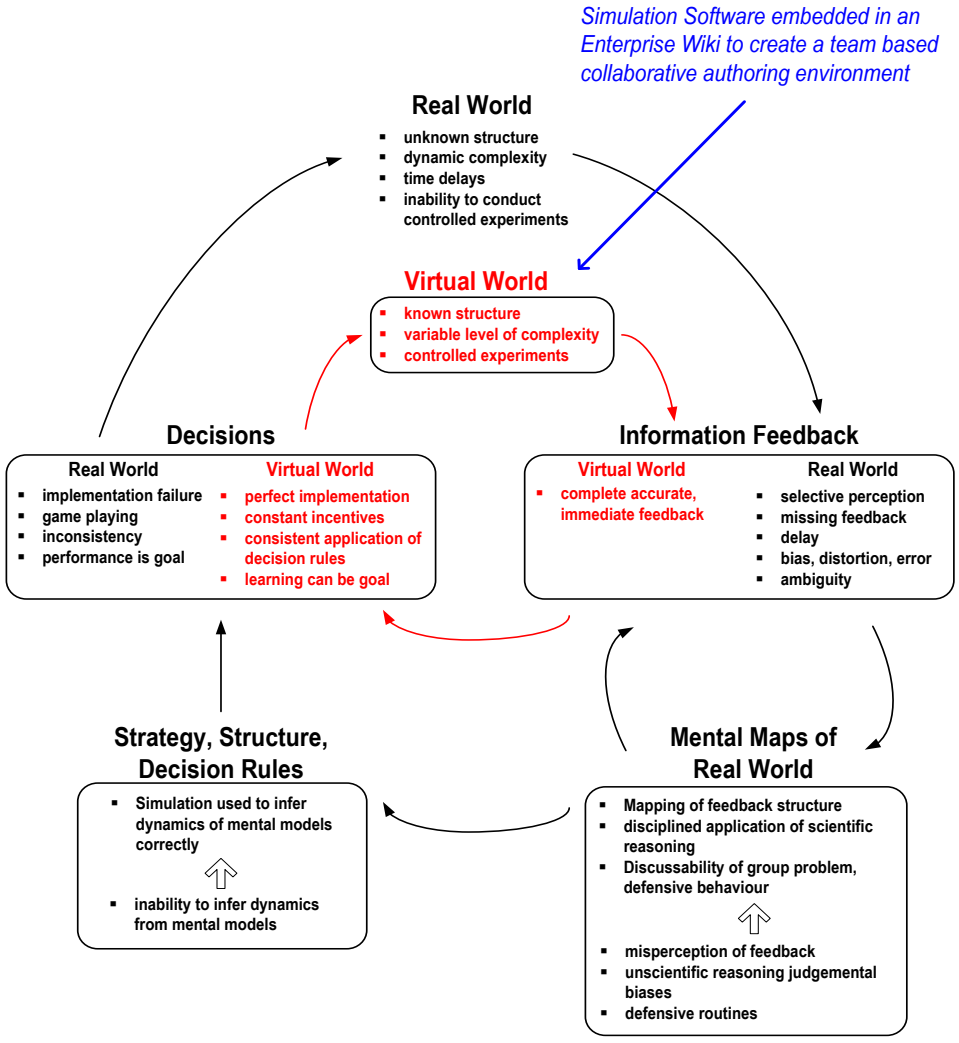

Figure 3: Learning in Complex Systems – an idealised learning process with continuous experimentation in both the real and virtual worlds (after Sterman 2000). For the Supply Chain Management Major, simulation software is embedded in an enterprise wiki to create a team-based collaborative authoring environment.

Conclusion

After a review of transnational education literature with an emphasis on the use of computer-mediated communication to create online learning environments, we recount some of the experiences of delivering a transnational commerce degree in a blended delivery mode from UoW and a private education provider in Singapore. Our experience suggests that student-centred learning requires the support of educational software. We initially described the characteristics of computer-mediated collaboration, and modified one of these to account for the necessary mechanisms of communication, coordination and awareness. We associated these mechanisms with so-called enterprise wikis and described the advantages and uses that this would have in the Supply Chain Management Major subjects. For one of these subjects, which introduces simulation techniques to supply chain students, the simulation software itself needs to be embedded in the enterprise wiki to create a team-based collaborative authoring environment. We then used an established idealised learning process which emphasised continuous experimentation in both real and virtual worlds, to show how the wiki could support learning about complex systems. Within the context of transnational delivery, we need to ensure that the learning environment, or 'community of learning' progresses from the single loop learning practice to a more comprehensive double loop learning process. From here, we need to explore the development of a model for wiki utilisation into courses and curricula that span geographical boundaries.

Acknowledgements

This paper is part of the Collaborative Authoring in Project-oriented Distributed Teaching and Learning (CAP Project) developed by the authors (Clarke, Pepper and Noble) in 2009 and funded under the auspices of the Faculty of Commerce and the University of Wollongong, Australia. The authors also acknowledge the support of the following research centres: the Centre for Applied Systems Research (CASR) and the Centre for Social and Non-profit Marketing (CSNM) at UoW.

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SECTION II

COMMUNICATION AND LITERATURE

CHAPTER 6
Literature and social innovation

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Keywords
Literature, popular writing, social reform, affect theory, Dickens, Zola, Achebe, Ngugi

Abstract
This article considers the nature of literature's connection to the production of social change. It argues that while admitting the theoretical understandings of literary texts as meaningful within formal and linguistic systems, at a level removed from the social real, writing – perhaps most notably, popular and post-colonial rather than canonical writing – can induce imaginative and emotional shifts that facilitate social action and reform.

* * * * *

Introduction

Let me begin with two quotations: one is the notoriously misused line from "*In Memory of WB Yeats*" by WH Auden, "poetry makes nothing happen" (Auden 1940):

> **II**
>
> You were silly like us; your gift survived it all:
> The parish of rich women, physical decay,
> Yourself. Mad Ireland hurt you into poetry.
> Now Ireland has her madness and her weather still,
> For poetry makes nothing happen: it survives
> In the valley of its making where executives
> Would never want to tamper, flows on south
> From ranches of isolation and the busy griefs,
> Raw towns that we believe and die in; it survives,
> A way of happening, a mouth.

The other is from Arundhati Roy, who chides Rushdie for forgetting that books can still get people killed in India but declares: "There is something precious about living in a place where literature actually affects lives" (Roy, as cited in Hart 1987, 87). Her quick departure from fiction into social action supports Auden's dictum, although one might say that poetry, as art in general, can make something happen if you win a lot of money and reinvest it in good causes such as the anti-dam and anti-nuclear movements. And *The God of Small Things* in fact dramatises the real-life politics of Kerala, the actual caste discrimination and her mother's fight to win inheritance rights for women, even if divorced (Barsamian 2001).

The difference between the two attitudes is typical of what still marks a distinction between late colonial metropolitan writing and post-colonial literary studies (the field I have worked in for some time and the subject of this paper). In the first category of 'mainstream' first world literature, art has the luxury of becoming a self-referential technical exercise so that even a leftist, gay experimentalist writer like Auden leaves his art ultimately as a Keastian Grecian urn – a thing of beauty, but a self-enclosed object of silence, a "cold pastoral", even when it witnesses something remarkable like a boy falling out of the sun, as it does in the Breughel painting that Auden sees as affirming the ongoing indifference of the ordinary everyday ('Musée des Beaux Arts'). On the other hand, post-colonial writing cannot afford to give up on the hope of art and its witness having a productive function in society, since its own survival depends on it, especially in the case of writing in English from nations that have fought to be free from their colonial pasts. If it has no impact in the national process of "making things happen", then it is merely a vestigial survival of a mentally colonised elite that will remain marginal to old mainstream literatures in English and be irrelevant in its local setting.

If we disagree with Auden's statement (and this in itself negates it, since his rhetorical flourish in a line of poetry actually *does* make something happen – it provokes debate), we are led to ask what kind of things 'poetry' might make happen and how might they bring about such changes. Of course, I am exaggerating a binary, but it is one that has informed a lot of comment about the connections between literature and social change. Canonical works have often had social effects. For example, to some extent literary feminism arises out of them, and Woolf was an aesthetic experimentalist even while noting the material conditions that made writing difficult for most women. Perhaps 'pulp' art does little, but again it has been argued that it in fact simply confirms the status quo and therefore only seems to do nothing. All literature, if you look at it from the perspective of oral cultures, teaches us to be readers, and to behave as we see characters behaving: to be individuals aware of our private lives as well as our public roles.

Text as technology or imaginative engagement

In the context of this conference, we also have to ask what is meant by social innovation. Technological innovation need not in itself generate social innovation and social innovation may not mean something as specific or institutional as law reform or as broad as cultural change. If we mean the appearance of new modes of behaviour in a society, then it is true that the quite radical technological innovations of writing and printing as they appeared to the oral cultures of the Pacific Islands did not at first produce more than curiosity and temporary assimilation into local practice. For example, on their first contact with books, Micronesians sewed pages together into dresses of "white man's tattoo" but threw them away once they tore and pulped in the rain (O'Connell 1972, p.110). Polynesians took to writing as they took to other novelties of Western technology, with all the enthusiasm of consumers after the next gadget – such as the Xbox, iPhone, etc. It took the mix of chiefly authority and missionary zeal to effect a cultural change which incorporated the written word, but the social effect of that was not altogether innovative (Edmond 1997; Smith 1998). Chiefs and their surrogates (missionaries, pastors and colonial officers) continued to control the word and the dissemination of print. Reading was largely confined to collective Bible reading and supervised interpretation, and converted back into public rituals of churchgoing and oratory. It was not until the mid 20th century that the full effect of print culture in the sense of individual authorship, private reading and the public circulation of private thoughts (including social critique) began to be seen as social innovation. Nonetheless, print culture did make things happen: every so often a literate islander would blend Bible reading with

indigenous prophetic visionary traditions to produce a new interpretation of the world and its relations of power. These people created charismatic movements of radical innovation: new rituals, new syncretic symbols, strange mixes of material and spiritual longings, and revolutionary 'ground clearing' to await apocalyptic renewal (Sharrad 1999). These disturbing innovations were labelled 'cargo cults' and were frequently suppressed with violence. So the poetry of the King James Bible, at least, did make things happen. It led to dreams of prosperity and freedom; it led to people being killed; arguably, it led to the demise of the colonial power that introduced the technology of reading and writing in the first place.

Of course, in theory, Auden is right: art that directly seeks to reflect society and affect society is either sub-artistic polemic or kidding itself about its own nature as representation, as a sign system with a coherence that is only indirectly linked to real experience. That is, if it does make things happen it is not 'true art'. The text does not give us reliable access to the mind of the writer, the period from which the work emerges, or even to the core truth embodied in the text itself. The most we can hope for is that we bring our own horizons of experience and reading competence to the text, engage with its multiple codings, and infer a structure of meaning that is akin to a holograph of the world that the text seems to refer to. (This is a ridiculously brief encapsulation of structuralist, Marxist and reader-response theories of text and meaning: see for instance, Culler 1975; Jameson 1981; Tompkins 1980).

How we then respond to this will depend on our relation to our own world as much as on the text and its effects. But taking this theory on board does not require us to retreat into artistic quietism. Linda Hutcheon (amongst others like Judith Butler and Terry Eagleton), points out that writing and scholarly analysis often refuses the post-modern turn to aestheticist solipsism by resorting to irony – an irony that recognises the complex and indeterminate contingencies of experience as a basis for undoing dominant ideas and systems, but which does not give up on the idea of truth and an active intervention in the cause of improving the world (Hutcheon 1989; Butler 1993; Eagleton 1983). Many post-colonial writers would even reject irony as too compromised and indecisive – which is why they are often not given literary prizes: they are too 'earnest' and do not show the sophistication of 'proper' art.

'Improper' art and engagement

Chinua Achebe, early in the emergence of anglophone post-colonial writing, commented that such exclusivist criticism failed to note that many British writers were 'earnest' (Dickens, for example, in his condemnation of the workhouse), and that Africans had had a diet of extremely earnest missionaries, administrators and educators, all keen to subject them to a diet of 'improving' literature (Achebe 1975, p.14). We might argue that Dickens, for all his sensationalist and sentimentalist dramatisation of stories, was earnest enough to move his public towards sympathy for the poor – the victims of legal bureaucracy, the convicts in hulks on the Thames facing the lash and transportation – and that as a consequence of these sympathies, new ways of behaving and organising society came into being. We could certainly argue that Chinua Achebe's ironic treatment of colonial ethnography in his pioneering West African novel *Things Fall Apart* was an earnest apologia for the adequacy and dignity of Ibo culture prior to colonial contact, and that it induced a new way of thinking in colonial readers about Africa, as well as a pride in self amongst West Africans. The novel thus supported political assertiveness against late colonialism and indirectly led to the emergence of the Nigerian nation.

Art, of course, will make nothing happen if it only tells us what we already know or speaks to us through emotions we already feel. Telling us what we do not know runs the danger of

taking art into tedious documentary, and working with new emotions or focussing on emotion can be counter-productive in producing discomfort or outright disgust. This is the nature of art: to move us in new ways and into unknown spaces of awareness, not so that we feel good necessarily, but rather that we feel moved, inclined, interested. It is a fact, no matter how deluded he was about the revolutionary potential of Naturalism, that Emile Zola's relentless cataloguing of squalor, violence, filth and exploitation in the mines of France in his novel *Germinal* informed a wider public about social reality and moved it to seek reform. Unless we know what is going on, we cannot realise a need for change, and art can sometimes get the message through in a way that the press will not or cannot.

It is the very indirectness of art that allows social innovation to occur. Zola was not a coal miner. If he were, his story would have been different in tone and in voice, and almost certainly would not have circulated in polite society at all. The popular poem "Song of the Shirt", that influenced reform in the piece-work conditions of poor young women in 19th century England, was not penned by seamstresses or written to be circulated amongst them (though it was as well), but rather was produced by and for the gentry who were able to experience the horror of the thought of one of their own sinking to such destitution, to feel pity for the exploited worker, and to be moved to agitate for reform of working conditions (Hood 1864). Dickens had direct experience of poverty, but it was his awareness of not belonging to the blacking factory and his distancing of himself from it, that allowed his writing against its demeaning conditions. The people who led the fight against slavery were, on the whole, neither slaves nor reformed slave owners – they were middle-class gentry and aristocracy who boycotted sugar in their tea in England because they had been moved by a novel from a writer herself at one remove from the plantation violence she depicted. Although Harriet Beecher Stowe lived on the Cincinnati borderline between North and South and spent some time in Florida, she came from Connecticut and wrote her novel in Maine. *Uncle Tom's Cabin* ironically did more for the abolitionist cause than a whole raft of autobiographies like Booker T Washington's *Up From Slavery*, although the authority of real-life, first hand witnessing also had its place in supporting the innovations to plantation society attendant upon the legal reforms that produced Abolition.

It is possible that the art that makes things happen is not the art we are taught to appreciate as having 'classic' qualities. It may be the earnest, partisan writing of an Achebe or the sensationalism of a Zola or the vulgar, the sentimental – the Dickensian – that may move us more readily. This may well be why conservative commentators get so upset when departments of literature or the HSC open up the literary curriculum to the study of TV serials, movies and comic strips. Deep down they know that for all the beauties and universal wisdom of Shakespeare or Jane Austen, studying them *as classics* actually makes nothing happen. One of the claims made by post-colonial scholars and new historicist theorists is that reading them as part of history and the politics of culture in their own time and ours might lead to new insights and shifts in current practices (Ashcroft, Griffiths & Tiffin 1989; Brannigan 1998). Analysing the messages of popular culture may also lead to our seeing the prejudicial representations of women and people of colour and may lead us to look at 'underground' voices not usually encountered.

One example of post-colonial writing making things happen via the gap between art and society is a book by Kenyan Ngugi wa Thiong'o, *Matigari*. He reworked Gikuyu legends, Bible stories, and cartoon-like scenes from Kenyan society to tell a hero story of revolution against corruption, poverty, and the takeover of colonial power by a self-serving national elite. *Matigari* was written in Gikuyu and read aloud in bars. It could be discontinued when

police showed up and resumed later. Eventually, the security forces put out an arrest warrant for the protagonist because his story had entered into popular conversation as though he was a real person and his actions were fomenting social unrest. Ngugi himself had been imprisoned for taking up the technology of print learned in mission schools in order to satirise the excesses of his national government. He wrote himself out of his identity as James and his fiction in English, and into his Gikuyu culture and identity, and in doing so became involved in popular theatre and street recitals, a social innovation that made enough happen for multinational interests to be worried and their political beneficiaries to be threatened. Eventually the regime of Daniel Arap Moi was so exposed to public scorn that it was overthrown in an election.

Engagement through affect

In his 1960s American revision of Freudian drives, Sylvan Tomkins posited a set of fundamental motivating responses to sense data that he called 'affects' (Tomkins 1995, 33-40). These 'gut-level' impulses are universal but have to be processed by the mind into emotions. It is in this process of 'representation' that social meanings intervene, and a complex network of permutations and combinations comes into play, whereby pre-conscious reaction may assume all kinds of expression, depending on context, personality, experiential history, culture, and so on. Brian Massumi and others have attempted to analyse the 'translation' of affect into emotion, cognition and behaviour via the processes of synaesthesia and metaphor, and this lets in both the writer and the reader as agents in social innovation (Massumi 2002, 23-45). Texts seem to have an uncanny ability to generate affective responses, and these may or may not lead to conscious action, depending on the vectors shaping those effects into emotion and cognition. A book intended as a radical call to arms in the class war may pull out all its stops to tug at the heartstrings of the bourgeois reader to cause him or her to imaginatively side with a revolutionary hero, but it may still be seen in some circumstances as a rather outdated bit of melodrama recuperating patriarchal public and physical assertiveness. Similarly, a conservative exercise in creating an exquisitely stylised investigation of the mental processes of the first-person narrator may result in readings that celebrate its radical exposé of realist grand narrative.

A common rhetorical device in post-colonial writing is to represent the decolonising minority as emotional in contrast with the stiff upper-lip rationalism of the hegemonic regime. Leopold Senghor located the difference of Negritude in Africa's capacity for rhythm and dance; Maori sing and weep and haka as opposed to Pakeha prosaic reticence (Senghor 1976; Walker 1990). This rebounds on the post-colonial writer when metropolitan critics dismiss their work as too colourful and sentimental. But the *performance* of emotion is itself what is significant and what claims for the popular and counter-hegemonic text some kind of political energy. At the extreme end of textualising, this can be as insufferably propagandistic as Hitler's verbal barrages, but it is also a refusal of totalitarian imposition.

David Callahan, in commenting on Janette Turner Hospital's gruelling fictions of terror, notes that the "codes and patterns [of literature] and the way they unite and intertwine [result in] the production of emotional effects… in the listener [which are] not guaranteed by those patterns" (Callahan 2008, p.294).

> For example, even if a piece of music is universally felt to evoke sadness, it is the listener who decides how to process that sadness, whether in terms of a personal memory, a group reference (what happened to our people) or something more generic (we all have to die) (Callahan 2008, p.296).

In this 'openness of interpretation', to extend Callahan's reading, lies the ethical engagement of the reader and the anti-totalitarian engagement of the writer, both hedged inside and out by cultural habits and political frameworks. Reading becomes a political act, and writing a political intervention, and the outcome depends on the space in which text and reader operate.

JM Coetzee (whose book *Disgrace* is now a globally circulating movie about gender and race ethics in the new South Africa), meditates on the politics of writing and the dangers of affect in art in a quest for a highly sophisticated stripping bare of romantic sentimentality such as that produced the high affect of Hitler or apartheid. However, at the same time his work does not give up on the necessity of art and the need for it to move us, to make us aware, to throw us into shame and self-questioning that leaves us open to new behaviours. At times his writing seems like the exact opposite to my position in this paper, and it has been criticised as being over-theorised and exactly the quietist aesthetic retreat of Auden's non-productive poem. Yet Coetzee is as earnest as Achebe and I am sure would support Mark Davis, from a quite different, more combative rhetorical position, when Davis makes the point that both liberalism and the post-modernism that has exposed its failings have been sidelined by neo-conservative economic rationalism. To recover a critical edge and a social effectiveness, literature and its scholarship needs to write "with the needs of different audiences in mind" and adopt not high, but "Low theory [that] would involve learning to use the logic of affect", as well as theory and critique that will "proceed from the accounts of people and place so as to tell stories that make our concerns real in ways that resonate with broader audiences". (Davis 2007, 27)

This is what the writing of social innovation does, and what the post-colonial literary critic has largely attempted. Recent scrapping by the Indian High Court of statute 377 against 'unnatural acts' inherited from a Victorian colonial morality, and used to persecute non-heterosexual groups (Bidwai 2009), is the result not only of social activism by minorities, but also of the circulation of sympathetic and polemical poems (e.g. Hoshang Merchant's work *Forbidden Sex, Forbidden Texts: India's Gay Poets*), films (Deepa Mehta's *Fire*) and fiction (such as the central story of Vikram Chandra's *Love and Longing in Bombay*), as well as by critical commentary on such work.

For social innovation to occur, it needs recognition of a need, the imagination of possible alternatives, emotional engagement to motivate action for change, and intelligent reflection to model or remodel outcomes. These can all come into being without the agency of art, but art can certainly play a part in generating and sometimes speeding up the process, and post-colonial literatures continue to have an active role in creating the climate for ongoing social change.

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CHAPTER 7

A Simple Lust: Dennis Brutus and the Anti-Apartheid Campaign

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Keywords
South Africa, literature, anti-apartheid, Dennis Brutus

Abstract
A number of South African writers could be said to have had a significant impact on the demolition of the Apartheid state in South Africa. In particular, those whose works were censored or banned within South Africa but gained circulation in the world beyond national borders so influenced the international community as to have constituted a major force in effecting social and political change. This essay focuses on the cultural and political work of South African poet, Dennis Brutus, to argue a case for the power of poetry, or more broadly, literature, to effect social change on two fronts: the first being the power of literature to affect the individual, that is, the power of poetry to stimulate imagination, encourage empathy and its associated desire to alleviate suffering; and the second front being the power of the cultural authority of the poet or more generally, the writer, to enhance the effectiveness of his or her associated actions in the 'real world' of politics.

* * * * *

In the late 1970s during what would have been my second or third year of a B.A. in English Literature at the University of Queensland I attended a riveting twin performance of Athol Fugard's plays *Sizwe Bansi is Dead* and *The Island*, played, if my memory is correct, by the black actors John Kani and Winston Ntshona. It was a life- and career- changing moment – not monumental perhaps, but significant in that it opened my eyes, mind and heart to a South Africa of which I had read but had not been particularly affected. The literary representation of racially-based injustice and inhumanity suffered under the apartheid regime in South Africa of which I was aware but unmoved, now moved me: by which I mean that it not only moved me emotionally, it caused me to act upon that emotion – directing my further study toward postcolonial literatures and lending a political edge to my aesthetic engagement with poets, playwrights and novelists. This awareness of the real impact that literature could have upon the world – its capacity for social transformation, was further supported by the subject on the Romantic poets I had recently completed. The two 'events' in combination caused me to reflect upon the links between the Romantic ideology and practice of the late 18th and early 19th centuries, and the literature of the anti-apartheid movement in the latter half of the 20th. Taking the life and literature of South African activist poet Dennis Brutus as a case study, this paper affords me the space in which to persuade you of the integral relationship between the

two periods and literatures, and of their transformative capacity at an individual and a social level.

Initially writing in support of the ideological underpinning of the French Revolution, English Romantic poets believed that literature could change the world – that the pen was in effect mightier than the sword. Increasingly horrified by the violence of the revolutionary sword in France, they strove to achieve a similar democratic end by peaceful means. The abolition of slavery throughout the British Empire, achieved after some fifty years of literary and artistic Romanticism, is exemplar of the power of literary and visual rhetoric when combined with strategic non-violent action, to effect social change. William Bake had illustrated J. G. Stedman's *Narrative, of a Five Years' Expedition, against the Revolted Negroes of Surinam* with an etching of 'A Negro Hung Alive by the Ribs to a Gallows' in 1796 and, in 1789, had published his poem asserting the humanity, and indeed, the divinity, of the black child:

> My mother bore me in the southern wild,
> And I am black, but O! my soul is white;
> White as an angel is the English child,
> But I am black, as if bereav'd of light.
> ('The Little Black Boy')[1]

The persuasive power of the Society for the Mitigation and Gradual Abolition of Slavery Throughout the British Dominions (founded in Britain in 1823 by William Wilberforce and Thomas Clarkson among others) was empowered as much upon the literature and the writers it chose to support and employ in its cause, as the rhetorical skill and political clout of its members. The first account of slavery to be published by a black woman in Britain is exemplar. Mary Prince ran away from her master when she was brought to England from the West Indies.[2] Finding protection in the Moravian Mission House in London, she was subsequently employed (in 1829) by the secretary of the Anti-Slavery Society, Thomas Pringle, who also arranged for the publication of her story, *The History of Mary Prince, A West Indian Slave*, in 1831. The book was sympathetically received by the public, running to three editions in its first year, and is reputed to have had a 'galvanizing effect on the anti-slavery movement' ('Mary Prince' 2009, online). The case brought by Prince's previous 'owner', John Wood, against Pringle for endeavouring 'to injure the character of my family by the most vile and infamous falsehoods' ('Mary Prince' 2009a, online) was lost, and subsequent attempts to blacken Prince's reputation and authority by prominent supporters of slavery were stymied with a successful counter libel suit.[3]

Clearly, not only a large portion of the educated public, but the law, was now in sympathy with the Romantic push for 'liberty, equality and fraternity' regardless of gender, race or class. 'Man is born free,' Jean Jacques Rousseau had declared in 1762, 'and he is everywhere in chains.' Rousseau makes the claim that, 'Since no man has any natural authority over his fellows, and since force alone bestows no right, all legitimate authority among men must be based on covenants;' thus, he reasons,

> however we look at the question, the 'right' of slavery is seen to be void; void, not only because it cannot be justified, but also because it is nonsensical, because it has no meaning. The words 'slavery' and 'right' are contradictory, they cancel each other out. Whether as between one man and another, or

> between one man and a whole people, it would always be absurd to say: 'I hereby make a covenant with you which is wholly at your expense and wholly to my advantage; I will respect it so long as I please and you shall respect it so long as I wish.' (Rousseau 1762, online)

Rousseau's *Social Contract* is a philosophical and political treatise which marks an ideological shift that would result in far-reaching radical social change. But I would suggest that the logic he employs in his argument against slavery is rendered truly powerful by the poetry employed by those of a more literary bent, like Blake:

> I wander thro' each charter'd street,
> Near where the charter'd Thames does flow,
> And mark in every face I meet
> Marks of weakness, marks of woe.
>
> In every cry of every Man,
> In every Infant's cry of fear,
> In every voice, in every ban,
> The mind-forg'd manacles I hear.
> ('London', Blake, p88);

or indeed, like Mary Prince whose words carry the affective power of story as 'truth' - a genre Rousseau would himself later employ in his *Confessions*. Completed in 1769 and published posthumously in 1782, *Confessions* is generally recognised as the first of its kind, that kind being the autobiographical genre as we know it today.[4] Although its title is taken from St Augustine's *Confessions* (written in 397-8) and although also preceded by Saint Teresa's[5] *Life*, these models were in main the record of religious experience, or the spiritual life. Rousseau's confessions are the representation of the individual in 'the world', and as such are a record of the intimate and the public self (selves).

The *Confessions* begins, 'I have resolved on an enterprise which has no precedent, and which, once complete, will have no imitator. My purpose is to display to my kind a portrait in every way true to nature, and the man I shall portray will be myself.' (Rousseau 1782, online) (The appearance of) truthful testimony, the revelation of self, and the laying bare of feeling are integral to this literary form. As Thomas Pringle notes in his preface to the *History of Mary Prince*, Mary wished her story to be written and published 'that good people in England might hear from a slave *what a slave had felt and suffered*' and he assures readers that, 'The narrative was taken down from Mary's own lips … written out fully, with all the narrator's repetitions and prolixities…' (Prince, p.iii, my emphasis) As such, Mary's *History* conforms to the Romantic requirement of Feeling (allied with the belief that the heart does not lie), and in addition, to the Romantic dictum that experience represented in the language of feeling should by extension elicit a corresponding sympathetic feeling in the reader/hearer. Susanna Stickland, Prince's amanuensis, writes of her conversion to the anti-slavery cause as one brought about primarily by 'conversing with several negroes, both male and female, who have been British colonial slaves' and remarks on the degree to which she 'could not listen unmoved' to 'their simple and affecting narratives': 'The voice of truth and nature prevailed over my former prejudices.'(Strickland, pp10-11)

'Since I have been here,' writes Mary Prince in the concluding pages of her *History*,

> I have often wondered how English people can go out into the West Indies and act in such a beastly manner. But when they go to the West Indies, they forget God and all feeling of shame, I think, since they can see and do such things. They tie up slaves like hogs—moor them up like cattle, and they lick them, so as hogs, or cattle, or horses never were flogged;—and yet they come home and say, and make some good people believe, that slaves don't want to get out of slavery. But they put a cloak about the truth. It is not so. All slaves want to be free—to be free is very sweet. *I will say the truth* to English people who may read this history … *I have been a slave myself—I know what slaves feel*—I can tell by myself what other slaves feel, and by what they have told me. The man that says slaves be quite happy in slavery—that they don't want to be free—that man is either ignorant or a lying person. I never heard a slave say so. (Prince, p23, my emphasis)

'I will say the truth… I have been a slave myself – I know what slaves feel': Both Mary Prince and her champion, Thomas Pringle, hoped that her story would encourage a hardened society not merely to recognise the wrong in its actions, but to feel for the suffering of those like Mary who makes a claim on our humanity because she feels 'just like us'. The empathy, inspired by the poetic language of feeling, was the means by which the Romantics hoped to affect a shift in attitude and a corresponding social transformation. Romantic philosophy was based on the principles of the sublime, as expounded by Edmund Burke in his *Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* of 1757, and on Adam Smith's *Theory of Moral Sentiments* of 1759. Burke's claim that 'there is no spectacle we so eagerly pursue, as that of some uncommon and grievous calamity; … The delight we have in such things, hinders us from shunning scenes of misery; and the pain we feel, prompts us to relieve ourselves in relieving those who suffer,' (Burke, Part1, SectXIV, p46) and Smith's claim that, 'By the imagination we place ourselves in his [someone else's] situation, we conceive ourselves enduring all the same torments, we enter as it were into his body, and become in some measure the same person with him, and thence form some idea of his sensations, and even feel something which, though weaker in degree, is not altogether unlike them,' (Smith, Part1, Sect1, Ch1, p9) was equally suited to literary rendition. In either case, literature could represent scene, story, character and event in a language that prompted an imaginative 'felt' response and evoked the desire to alleviate suffering. Mary Prince's recollection of the day she was taken from her mother to be sold at auction to another master is exemplar of literature's capacity to evoke feeling and the desire to alleviate suffering. She tells how,

> Our mother, weeping as she went, called me away with the children Hannah and Dinah, and we took the road that led to Hamble Town, which we reached about four o'clock in the afternoon. We followed my mother to the market-place, where she placed us in a row against a large house, with our backs to the wall and our arms folded across our breasts. I, as the eldest, stood first, Hannah next to me, then Dinah; and our mother stood beside, crying over us. My heart throbbed with grief and terror so violently, that I pressed my hands quite tightly

> across my breast, but I could not keep it still, and it continued to leap as though it would burst out of my body. But who cared for that? Did one of the many by-standers, who were looking at us so carelessly, think of the pain that wrung the hearts of the negro woman and her young ones? No, no! They were not all bad, I dare say; but slavery hardens white people's hearts towards the blacks; and many of them were not slow to make their remarks upon us aloud, without regard to our grief—though their light words fell like cayenne on the fresh wounds of our hearts. Oh those white people have small hearts who can only feel for themselves. (Prince, pp3-4)

This is affective prose whose purpose is, at least in part, the evocation of sympathy, indeed, empathy, in the reader. Of course a felt response to the suffering of others that might be induced by this passage does not necessarily result in action. The desire to alleviate suffering may remain merely an unacted desire (and in fact the cathartic experience of poetic feeling may suggest action has been taken merely by feeling). 'He who desires but acts not, breeds pestilence,' writes Blake, and further, 'Sooner murder an infant in its cradle than nurse unacted desires,' and significantly, 'What is now proved was once only imagin'd.' ('Proverbs of Hell', Blake, p198) Yet sometimes the generative agent of Romantic ideology is forgotten – that it is the responsibility of every human being to act on their desire – in this case their sense of injustice and desire to right a grievous wrong: Imagination is not passive. When Blake calls for his 'arrows of desire' in the poem 'And did those feet in ancient time' (and in the later hymn, 'Jerusalem'), that call is accompanied by a promise:

> I will not cease from mental fight,
> Nor shall my sword sleep in my hand,
> Till we have built Jerusalem,
> In England's green and pleasant land.
> ('And did those feet in ancient time', Blake, pp319-320)

Poetry is a catalyst. Imagination engenders Feeling engenders Desire for change engenders Action. All well in theory. Not everyone (in fact, probably very few people) will feel the responsibility to act upon being moved by a poem; hence the need for a two-edged sword – the mental and the physical, the poetic and the political. The 'mind-forg'd manacles' must be removed before social transformation can be effected; imaginative action must be followed up with action that 'makes waves' in the real world. The work of South African poet, Dennis Brutus and the successful struggle against the apartheid regime is exemplar of this principle. Equally it is evident that Brutus writes out of a tradition of English literary Romanticism.[6]

Nadine Gordimer, nobel prize-winner for literature, and a significant literary and political voice in the struggle against apartheid herself, writes of her countryman: 'The lyrical force of his [Dennis's] poetry was transposed into his revolutionary actions — something immensely invigorating, to see the grim determination of defiance lit up as theater before the oppressors, brighter than their searchlights and flash of their guns...' (Gordimer, online).

> The sounds begin again;
> the siren in the night
> the thunder at the door

the shriek of nerves in pain.

Then the keening crescendo
of faces split by pain
the wordless, endless wail
only the unfree know.

Importunate as rain
the wraiths exhale their woe
over the sirens, knuckles, boots;
my sounds begin again.
(Brutus 1973, p19)

Included in *Sirens Knuckles Boots* - a collection of Brutus' poetry that was published in Nigeria whilst the poet was incarcerated in South Africa's notorious Leeuwkop and Robben Island prisons for 'breaking a banning order' - this poem is evidence of 'the grim determination of defiance' that Gordimer extols. Brutus will not cease from mental fight despite banning, shooting, imprisonment, torture, house arrest and exile. His sounds will not cease – his voice through the vehicle of poetry is raised again and again over the sounds of victim and victimiser in a relentless campaign against the injustice and inhumanity of apartheid policy and practice.

Born of 'coloured' parentage in Southern Rhodesia (now Harare, Zimbabwe), Dennis Brutus moved to Port Elizabeth, South Africa, as a child. He recalls his mother talking about the days of slavery: 'Her mother ... my grandmother had in fact known slavery, may have been a slave herself,' writes Brutus, 'She was of African descent, but of mixed descent also, an English family...'[7] Brutus speaks of growing up in 'an African, colored if you like, tradition of involvement in society' and, talking about his mother's social commitment, he notes the respect for the teaching profession in that community: 'teachers were very highly regarded. They were the leaders in a society where there were no political leaders.'[8] Following in his parents' footsteps, Brutus himself became a teacher and early involvement in political activism of the profession followed,[9] beginning his crusade against apartheid, particularly in sports, during his years as a high school teacher in the 1950s.

Racial discrimination was institutionalised in South African government policy and law from 1948, the year Brutus became a high-school teacher of English and Afrikaans in Port Elizabeth. In 1950 the Population Registration Act required all South Africans be categorized according to race – white, black (African) or coloured (mixed descent), and blacks were required to carry 'pass books' that restricted their movement to 'black areas'. The Suppression of Communism Act ('communist activity' being ascribed to any refusal of or protest against racial laws) was passed in 1950. 1951 saw the establishment of the Bantus Authority Act that would restrict residence, labour and government involvement by Africans to 'Homelands'. It was later supplemented by The Bantu Education Act of 1953 which also restricted education and employment; and in 1953 The Public Safety Act and The Criminal Law Amendment Act were passed to empower the government to declare states of emergency and to severely punish those who protested against the restrictive and often draconian racial laws. There is no need to rehearse them all here, but merely to

give a sketch of the period in which Brutus became a major player in the struggle against the apartheid regime.

Brutus was the founding secretary of the South African Sports Association (now the South African Non-Racial Olympic Committee) from 1959 and president of this group from 1963 to date. His goal, according to comment made in the *New York Times* in 1991, was to 'get the racist national Olympic Committee expelled' and 'get recognition for anon-racial sports body.'[10] Brutus was also the chair of the International Campaign against Racism in Sport from 1972 to date; chair of the International Advisory Commission to End Apartheid in Sport from 1975 to date; and on the Working Committee of Action Against Apartheid from 1978 to date. His campaign resulted in the ban on South African teams competing in the 1964 Olympic Games, a ban that would result in expulsion from the Games until 1990. In addition, South African cricket, rugby and other teams were banned from international competitions. But his activism in politicised sporting associations went in tandem with his literary and cultural interests: he was founder of the Troubadour Press (in Del Valle, Texas, 1971); on the board of directors of the Black Arts Celebration (Chicago) from 1975 to date; a board member of the American Poetry Center from 1988 to date; co-ordinator of the Union of Writers of the African Peoples from 1986 to date; advisory member of the African Arts Fund, 1985; board member of the Nicaragua Cultural Alliance from 1987; and director of the Program on African Writers in Africa and the Diaspora from 1988. Butus' political activism also extended to membership of the advisory committee for the National Coalition to Abolish the Death Penalty in 1989, presidency of the Third World Energy Resources Institute and director of the World Campaign for the Release of South African Political Prisoners; hence, Gordimer's extension of his influence from South Africa to the world when she writes that 'Dennis's passion is the real face of globalization.' (Gordimer, online)

It was however, Brutus' specific attack upon the South African apartheid regime that resulted in his banning (not only from writing, but from attending meetings) and ultimately his arrest and imprisonment. Banned from teaching, writing or publishing in 1961 under the Suppression of Communism Act in 1962, this ban was extended to include the prevention of any reproduction of his writings. As secretary (and later president) of the South African Non-Racial Open (earlier Olympic) Committee in 1962, Brutus was placed under house arrest pending trial for his involvement in the organisation, and finally arrested in 1963 for attending a sports meeting. This was also the year that some of his poems were published in Ruth First's journal, *Fighting Talk*. When released on bail he fled to Swaziland and from there tried to make his way to Baden Baden, West Germany to protest against apartheid in sports before the Olympic executive, but he was arrested by the Portuguese secret police at the Mozambique border and handed back to the South African security police. Fearing that his treatment at the hands of the police would be worse if none were aware of his recapture, Brutus attempted escape and was shot. He recalls:

> I knew they had guns, but I thought that in that crowd they would not shoot, because there were too many people. This was 5.00 in the afternoon in Johannesburg... when I turned a corner, I ran into a member of the Secret Police...and he shot me...at such close range that the bullet went straight through my body ... I was lying on the ground, a staring crowd around me, someone thought I was a white man and called the ambulance. When the white

> ambulance-men arrived, they took a look at me, put the stretch back in the van and drove off. It was an ambulance for Whites and it would have cost their jobs, if they had helped me. So I had to wait for the ambulance for my colour.[11]

Not only did Brutus survive the prison term with hard labour that followed, house arrest subsequent to his release, and exile from the country to which he was politically committed and emotionally tied (an exit permit denied him the right of return); his resistance was unremitting: Brutus continued to employ his strategy of international intervention in the area of life that he thought would have most impact on white South Africans, a strategy supported by more than twelve volumes of poetry; hundreds of poems published in magazines, newspapers and anthologies; and a vast number of essays, statements and interviews published and performed on the world stage. His voice was unstoppable:

> Let me say it [writes Brutus] [please leave this in]
>
> for no-one else may
> or can
> or will
> or dare
>
> I have lashed them
> the marks of my scars
> lie deep in their psyche
> and unforgettable
> inescapable.
>
> Of course there were others who served
> and much that I could not have done
> but I am a part of the work
> and they connect it with me
>
> they know I have done them harm
> ('Let me say it', *Letters to Martha*, Brutus 1973, p89)

Although the harm that Brutus has done 'them', is ascribed by the poet specifically to his successful campaign to refuse South Africa entry to the Olympic Games - the damage is done through the 'deprival' of 'that which they hold most dear', that being the showmanship of sporting prowess on the world stage; I would suggest that the poem itself is evidence of the degree to which the scars that Brutus inflicts (those that lie deep in their psyche) are the scars left by words. Sticks and stones will break their bones, but words will hurt them more. Why else would the apartheid regime have been so determined to censor the poet's words; stymie his career as teacher, lawyer and journalist; and ban the publication, reproduction or even quotation of his poetry? Ultimately the effect of this ban, and Brutus' subsequent self-exile, was the achievement of celebrity status both within, and perhaps more importantly, outside South Africa. *New York Times* columnist Anthony Lewis remarked in August 1983 that 'Brutus has a distinction that makes him a hated symbol to the white rulers of South Africa, and a heroic one to the critics of their regime: He has actually succeeded in bringing about some change…',[12] and Archbishop Desmond Tutu more

recently asserted that in winning 'a spectacular victory over the awfulness of apartheid' 'we had none more articulate and with all the credibility and integrity so indispensable than Dennis Brutus to plead our cause.' (Tutu, online)

I would suggest that Brutus' anti-apartheid campaign in the sports arena would not have been as successful without the authority and the international cultural cache of his status as a poet. Thus I am arguing for the power of poetry, or more broadly, literature, to effect social change on two fronts: the first being the power of literature to affect the individual, that is, the power of poetry to stimulate imagination, encourage empathy and its associated desire to alleviate suffering (Black American actor and political activist Danny Glover writes that 'Dennis has inspired countless people with his poems of struggle. All of us are in his debt' [Glover onoline])'[13]; and the second front being, the power of the cultural authority of the poet or 'the writer' to enhance the effectiveness of his or her associated actions in the 'real world' of politics. Choosing the one-way exit permit in order to escape the South African fate of his political and racial brethren, Brutus recalls the grey of Robben Island from the sanctuary of another grey Island (Great Britain), with a curious nostalgia and a complex love tainted by guilt:

> In the dove-grey dove-soft dusk
> when the walls softened to frozen smoke
> and their rigidity melted
> receding to miles
> ...
> and the sea was a soft circling presence –
> no longer a tight barbed menacing ring:
> in the dusk
> nothing was more agonizing than to be seized
> by the poignant urgent simple desire
> simply to stroll in the quiet dusk:
> as I do now:
> as I do now, and they do not.
> (Brutus 1973, p101)

Significantly, the Romantic poets sanctified the autobiographical 'I' – 'I fall upon the thorns of life,' writes Percy Bysshe Shelley, 'I bleed!' ('Ode to the West Wind' IV, Shelley, p214) The suffering of the Romantic 'I' is not a suffering induced by the poet's own circumstance alone, but can often be a sympathetic suffering induced by a concern for the circumstance of others. The poet suffers by association. He suffers because he is human. Thus Dennis Brutus writes both of and for himself, and for those like himself or for those with whom he is in sympathy:

> A simple lust is all my woe:
> the thin thread of agony
> that runs through the reins
> after the flesh is overspent
> in over-taxing acts of love:
>
> only I speak the others' woe:
> those congealed in concrete

or rotting in rusted ghetto-shacks;
only I speak their wordless woe,
their unarticulated simple lust -

to be treated with humanity and justice; to be free. ('A simple lust', Brutus 1973, p176) Such a freedom was achieved with the release of Nelson Mandela from prison in 1990, the abolition of the legal apparatus of apartheid from 1990-1996, the multi-racial democratic elections of 1994, the adoption of a new constitution in 1996, and the impact of the Truth and Reconciliation Commission 1995-1998. With the dissolution of apartheid, Brutus' work and person were 'unbanned', and he returned to South Africa in 1993 for the first time since 1966 to discover that although he was recognized as a hero of the struggle, his poetry was largely unread in his own country. According to Colin Gardner, 'many well-read South Africans, even some of those with a distinct interest in South African poetry, are wholly or largely unacquainted with his writing.'[14] Fifteen years of 'freedom' has gone some way toward remedying this ignorance; but although

… time and circumstance have changed
in ways not to be imagined
and where so much may be done –
time and the world transformed
(Brutus 1975a, p22)

Brutus is indefatigable in his call to attend to all that remains to be done: in 2007 the poet turned down his nomination for induction into the South African Sports Hall of Fame, declaring that, 'It is incompatible to have those who championed racist sport alongside its genuine victims. It's time—indeed long past time—for sports truth, apologies and reconciliation.'[15]

* * * * *

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[2] Mary Prince had been a slave in Bermuda, Turks Island and Antigua; but, under the terms of Lord Stowell's 1827 decision in the case of Grace Jones, her status as a slave in Antigua was temporarily suspended during her residence in England. (Thomas 2005, p115)

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[4] This said with the qualification that what constitutes 'autobiography' and the nature of the genre itself has been much contested relatively recently, and the category broadened under the new generic title of 'life writing' to include many kinds and styles of writing previously neglected.

[5] Saint Teresa of Avila [1515-1582].

[6] This tradition is evident not only in the degree to which Brutus' poetry is a vehicle through which he hopes to affect social change by means of a sympathetic correspondence of feeling between poet and audience, but also in the degree to which Romantic poetry was employed in the colonial educational curricula. In 'The Artist as Political Activist' Brutus recalls his father, 'who studied for the B.A. by something called Correspondence College at the University of Cape Town' quoting Tennyson and Blake and Browning as he shaved in the morning; and his mother talking to his brother about 'what he'd learned in English' as she washed the dishes: 'and I was drying the dishes, and I was hearing quotations from Wordsworth and Shakespeare…' (Brutus 2006, p153)

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CHAPTER 8

Literature as a social barometer in post-apartheid South Africa: reading contemporary 'White Writing'

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Keywords
Complicity; Identity; Damon Galgut; *Disgrace*; J.M. Coetzee; Patricia Schonstein; *Skyline;* South African literature; *The Impostor*; Whiteness

Abstract
Contemporary South African literature shows a renewed concern with the close bonds between land, place and people in the New South Africa. In the post-apartheid period, this is literature that reflects a close awareness of the need for an art that retains both a sense of creative integrity and the ethical and political demands of the narrative of the new, post-apartheid nation. Often history is invoked not as the deterministic frame that regulates each character's lives typical of so much of the country's literature, but as the accumulated mesh of individual experiences encompassed by the historical narrative. More to the point, this is writing of great aesthetic energy and political relevance, strengthened by an urgent need to justify its own relevance and a desire to contribute to the healing of a nation that remains in many ways deeply wounded.

Through a close textual analysis of a number of South African novels published since the end of apartheid, this paper explores how South African literature can function as a bridge between past and present, as a mirror to hold up to the here and now in search of a glimpse into the future of a land haunted by a dense web of violence, torture and falsehoods that have characterised it for three centuries. The essay focuses primarily on works by JM Coetzee (*Disgrace*, 1999), Damon Galgut (*The Impostor*, 2008) and Patricia Schonstein (*Skyline*, 2000) and seeks to place them in a dialogue with Coetzee's critical study *White Writing* (1988).

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> "*Thus in art, do matters of morality wait upon aesthetics*" (Howard Jacobson, in Mullhall 2009).
>
> "*The 'enigma' we are invited to contemplate can therefore be cracked: 'It is a tragic faith to be a white man in Africa', it says"* (Coetzee, in Attwell 1992).

Focusing on a number of recent novels by white South African writers, this paper argues a simple and familiar premise – that in South Africa literature is an integral part of a broad canvas where the end of apartheid and its aftermath are being repeatedly staged and restaged. In this context, many of these works intervene in a process in which the white subject self is presented as at once silenced by history and silent in the face of history. Specifically the paper explores a number of recent novels as instruments through which white South Africans come to terms with the dramatic nature and pace of political and social change in the country. I am especially interested in examining how the white South African's emotional mood and intellectual mindset inflect a body of writing that is often set in the southern-most point of South Africa, Cape Town or its surroundings, and in which the protagonists are also mostly white. That they are also *essentially* white is a proposition that I will pursue throughout the paper. To put it differently, in the post-apartheid South Africa, textual white identities often appear to be defined as a counter-narrative to the cultural idea of race; in this Rainbow Nation the white self grows both increasingly resilient and vulnerable.

Although conscious of the obvious and perhaps even simplistic assumption that drives this paper – that the thematic concerns of white writing are in a reasonably seamless manner a reflection of that community's own views – I propose that in the 'synchronised' nature of its themes such a body of writing can be read as representative of the diversity of views within the community. Although by definition the fictional is never a mimetic representation of the real, it also constitutes one of the most rewarding points of entry into an individual consciousness or that of a group of people such as the nation. In this case I propose, somewhat ambitiously, to update the claims made by the South African novelist and literary critic JM Coetzee in *White Writing* about the white South African's 'unsettled settler' identity (1988, p.4). After a brief outline of the main critical, methodological and ideological characteristics of my approach, I read selected works by JM Coetzee (1999), Damon Galgut (2003, 2008) and Patricia Schonstein (2000). In their own ways, all of these works articulate aspects of what fellow South African but British-based novelist, Justin Cartwright, refers to as "the white dilemma in South Africa" (Coetzee, 1999), telling the story of figures caught up between the contrasting forces of a shameful whiteness associated with apartheid and the corruption of hope that some of the works define as synonymous with the 'New South Africa', inherently outside of the control of white people. In this new setting whiteness is one of the most fraught sites of identity, now (as ever?) characterised by a mix of anxiety, arrogance and melancholia. Crucially, contemporary white South African identities rest uneasily on "the seething presence of [a] violent past", to borrow Avery Gordon's work on ghosts (cited in Adi Kuntsman 2009, p.vii). Thus in works such as Galgut's and Coetzee's the very reference to the adjective 'New' that now precedes the country's denomination becomes a sign and a site of the pessimistic, often apocalyptic, vision of the future.

White Writing in Post-Apartheid South Africa

In *White Writing*, an examination of 19th century writing in English, Coetzee argues that in South Africa the white self is, both by definition and disposition, inherently split, an "unsettled settler[] with so uncertain a future" (p.4). White writing, which Coetzee sees as "white only insofar as it is generated by the concerns of people no longer European, not yet African" (p.11), constitutes in this context a central locus for the creation and the performance of a certain way of being in (South) Africa that the author traces back to the colonising desire to name in order to know, and then to own. According to David Attwell, "Coetzee is astute in showing the impossible longings, delusions and evasions in white writing in English-speaking South African literature of the colonial and early apartheid periods" (2005, p.15). Echoing Coetzee's concerns, I am also concerned with the role of

literature in the creation and circulation of narratives of (un)belonging, dispossession and exile that now have the end of apartheid as a common reference point. In other words, however consciously it may do so, contemporary South African fiction by white people is at the forefront of a white response to the transforming reality of post-apartheid South Africa. As David Attridge suggests, "[t]he singularity of the literary work is produced not just by its difference from all other works, but by the new possibilities for thought and feeling it opens up in its creative transformation of familiar norms and habits: singularity is thus inseparable from *inventiveness*" (2004, p.11). Not surprisingly, these are novels in which the viewpoint is almost always that of white people, and where the main characters all are white; and, as in the case of most authors read by Coetzee in *White Writing*, here too the sense of a physical and historical setting is crucial to the novels' treatment of themes of estrangement, loss, fear and disempowerment.

Nevertheless, although the white viewpoint reflects a range of differing responses to the New South Africa, and is in some sense closely unified, it could not be otherwise. Attwell notes that the irony of Coetzee's own concept of 'white writing' is that it cannot encompass the breadth of a body of work "generated by the concerns of people no longer European, not yet African" (Coetzee 1988, p.11). While I argue that in many of the novels I read below there is a sufficiently attuned view of South Africa as to merit this present grouping, this is often the unwitting product of white identity whose ideological imprimatur – its 'DNA' – the writers and their characters are powerless to resist. Hence the earlier claim about an *essential* whiteness which is culturally natural in the most precise reading of Roland Barthes' notion of 'myth' (1957). In some of the novels this takes the form of a despairing account of a black-ruled South Africa where crime, corruption and violence are rampant and the white person is constantly under threat. In other works, the white person's naïve belief in the possibility of agency and change is constantly put under intense scrutiny and pressure, particularly insofar as the crucial element in their identity, whiteness, is so closely aligned with the history of apartheid. Through a focus on the place and function of whiteness in post-apartheid South Africa, I argue that almost invariably this anxiety is manifest, especially, at the level of an (un)conscious awareness of skin colour that masks a lack of perception of the ways in which whiteness is indeed "not so much a skin colour as a state of mind" (Boehmer 2005, p.56). While they use the form in order to resituate themselves in and with reference to the new nation, the rhetorical narrative structures the writers draw on effectively hold them captive to conventional ways of being white.

Vulnerable Whiteness: J.M. Coetzee's *Disgrace*

I begin this section with JM Coetzee's *Disgrace* (2000), undoubtedly the most notorious novel published in post-apartheid South Africa. It is also one of two earliest texts read here. Although it is arguable that any work written by Coetzee will attract its fair share of critical attention, the novel's unique ability to convey the peculiar *zeitgeist* of post-apartheid South Africa has resulted in a substantial body of literary criticism. In South Africa itself, and despite the fact that its publication was almost certainly instrumental in confirming Coetzee as a Nobel Laureate, the work's highly loaded and disturbing vision saw its author accused of 'treason' by different social and political elements. Perhaps for these reasons its insight into the spirit of a time and a place makes it one of the most provocative interventions in post-apartheid literature and politics. That it was written by such an intellectual figure so soon after the completion of the work of the Truth and Reconciliation Commission (1993-1997) meant that *Disgrace* in many ways acquired the meaning and the force of a 'white counter-narrative' to the Commission's confessional demands. Whilst the Commission was created with the stated aim of bringing about a dynamic process of national and personal healing

among all South Africans, in essence it was ignored by the vast majority of whites. In her reflection on the work of the Commission, *Country of My Skull* (1997), Anjtie Krog cites psychologist Nomfundo Walaza's pained views about the attitude of white South Africans to the Commission's work. Krog cites Walaza:

> What makes me angry is that whites are privatising their feelings. If you as a black person cry, you cry alone at the hearings. If you are angry, there is no person to direct that against verbally – they hide in their suburbs, they hide behind their court interdicts and legal representatives. The pain of blacks is being dumped into the country more or less like a commodity article – easy to access and even easier to discard. (p.161).

Almost in a direct illustration of this assertion, *Disgrace*'s staging of a white man's decision not to engage with the political dispensation of the New South Africa resonates loudly with the material and symbolic reality on the ground at the time of its publication. The point is not that Coetzee himself sought to position the novel in this manner but rather that the historical conditions into which it emerged immediately inscribed it with political and ideological meanings over which neither the novel nor its author had any sway.

Hence Justin Cartwright's view of *Disgrace* as a narrative "that captures with appalling skill the white dilemma in Africa", his own vocabulary redolent of a melodramatic grasp of the crisis of the white South African liberal. Cartwright's observation, cited on the back cover of Coetzee's novel, bring into play how topical are the raft of moral and ideological dilemmas rehearsed in *Disgrace*, for they appear customised to test the white liberal man to within an inch of his life. In a narrative thread that situates it within a solid tradition of works concerned with the *effect* of Africa on the white person, the novel knowingly leads its main protagonist, David Lurie, into a personal 'heart of darkness' that is metonymic of the broader experience of white South Africans.

While I do not want to suggest that Lurie is in any way a version of Coetzee himself, the existential crisis he experiences is typical of the novelist's entire *oeuvre*, and indeed one rehearsed in various forms in Coetzee's "memoir-fictions" (Andrew van der Vlies 2005; see also Farred 1997). In this new world white men like David Lurie, a university lecturer, discover that their skin colour has turned from a shield to a beacon; and that rather than protecting him it announces his privilege and paradoxically his vulnerability. Thus by rearticulating his whiteness as a weakness, Lurie refuses to submit to the symbolic power of his accusers –as a white man Lurie will not demean himself by begging forgiveness for the sins of his forebears. Accused of rape by a female student whose skin colour positions as a Cape Coloured, Lurie reacts almost as a caricature of the white identity produced by apartheid. Asked to explain his actions, hence to subject his position as a white man to his new non-white superiors, Lurie simply pleads guilty, no explanation given. To the people addressing him Lurie's refusal to engage constitutes simultaneously a challenge to their new power and a reaffirmation of the privilege of his whiteness. In her study, *White Women, Race Matters* (1993) – a title especially potent in its ambiguous emphasis on 'matters' as both verb and noun – Ruth Frankenberg proposes a useful explanation for the difficulties that white South Africans are beginning to experience in post-apartheid South Africa. She writes:

> Whiteness … has a set of linked dimensions. First, Whiteness is a location of structural advantage, of race privilege. Second, it is a 'standpoint', a place from which white people look at ourselves, at others, and at society. Third, Whiteness refers to set of cultural practices that are usually unmarked and unnamed. (p.1).

Perversely, if perhaps unwittingly, Lurie's silence shouts back at Walaza's claim that the decision by white South Africans to ignore the Truth and Reconciliation Commission's aims and its work was offensive to their black compatriots. As she stated, in words cited above: "The pain of blacks is being dumped into the country more or less like a commodity – easy to access and even easier to discard" (p.161). White people, she charged, held on to their privilege through a tested ability to remain aloof from the pain of others. *Disgrace* suggests that racial identities are themselves complex sites of agency and disempowerment. Lurie's silence reverses the dynamics of the relationship that has placed him under the gaze of his accusers, for, as Henry Louis Gates Jr argues: "[r]acial recusal is a forlorn hope. In a system where whiteness is the default, racelessness is never a possibility. You cannot opt out; you can only opt in" (2001, p.296).

However it is not possible to read Coetzee's novel in this manner without considering how it proposes its own response to the crisis faced by the white South African self. In what has remained one of the most discussed aspects in the novel, David Lurie's daughter, Lucy, becomes the means through which *Disgrace* goes on to intervene in the complex ideological and ethical debates about the meaning and the place of whiteness in the New South Africa. Lurie's disengagement is thus contrasted with and challenged by his daughter's behaviour when she is confronted with her own 'white dilemma'. Leaving the white city of Cape Town – and it is worth underlining the semiotic force of Cape Town as the birthplace of white South Africa – she nevertheless sets up her small farm holding in the Karoo, a region of South Africa equally potent in its association with white identities. She does so as a means of reconnecting with the land of her birth in a way that recalls her ancestors' colonial quest for a land-based identity. Echoing a theme also explored by South African novelist Damon Galgut in a recent novel, *The Impostor* (2008) (to which I will return in detail later in the essay), Lucy Lurie's escape to the 'heart of (white) South Africa' only places her in greater danger. Here too she will meet her own personal heart of darkness, for soon she will be raped, and afterwards repeatedly abused, both physically and emotionally. In one of the most confronting aspects of a difficult and ethically confronting literary work, she responds by deciding not to pursue her abusers. Like her father Lucy refuses to speak, but in this setting her silence is reconfigured as a direct engagement with history, with the present through the past. As a white woman who keeps quiet about her rape Lucy rejects the privilege accorded by racial discourses in which she is *naturally* the victim of a black sexual predator. In the context of my focus on the dynamic re-signification of whiteness, Lucy's silence is a crucial step in the journey to claim a place at the nation's table; it is the price she feels or knows she has to pay to stay, on the land and in the land.

Yet the rape of the white woman in this novel is also symbolic of a greater trauma that forever remains with the white person. For this very reason Lucy Lurie opts to stay because to abandon the farm means turning her back on the place where she *feels* she belongs. The decision itself is directly related to the novel's unsettlingly problematic conflation of place and self through the woman's body, and then the abused woman's body. Lucy's experience re-enacts "the seething presence of [a] violent past" (Kuntsman 2009, p.vii) as an ongoing, organic white response to post-apartheid South Africa. Crucially, her decision recognises that to stay requires of the white person the learning of a new vocabulary, if one her black compatriots know only too well. For while her silence, her humiliation, and her abjection are perhaps new experiences for her, and indeed for her father, they are among the oldest and most entrenched experiences known to black people in post-colonial South Africa. Indeed, David Lurie's reaction to the rape of his daughter by black men relates only partly to his

parental sense of responsibility and affection, for at another, significant level, his pain is a product of a long history in which the fear of contamination of white blood by black blood runs deep (Fanon 1952; Sharpe 1993). As a father, David Lurie is unsettled by his own complicity in this process because as a white man he witnessed the abuse and did nothing to prevent it or to avenge it.

Recalcitrant Whiteness: Damon Galgut's *The Impostor*

As I have suggested above, this sense of bearing witness to (potentially self-destructive) change is also picked up as a theme in two more recent novels by Damon Galgut. While his writing is often compared to JM Coetzee's for its sparing use of language, minimalist plots and deeply cerebral characters, Galgut lacks the subtlety of South Africa's Nobel Prize winner. It may be that he is in effect a writer for the times, and significantly Galgut remains in South Africa, in Cape Town. In Galgut's writing Africa seems closer to Joseph Conrad's in *Heart of Darkness* (1902) than to Coetzee's strangely – estranged? – un-African setting. But, like Coetzee, Galgut is concerned in his novels with examining the position of white people in post-apartheid South Africa. Both *The Impostor* and his earlier work, *The Good Doctor*, outline scenarios in which the white man – and the gender specific pronoun is intentional – is forced to reassess the recent past as a means of entering the promised racial rainbow of the new nation. Galgut's work as a whole is typical of the kind of writing concerned with black and white relations in the post-apartheid nation, but it does so with a conscious emphasis on the white perspective. In what I propose is a carefully modulated reference to Joseph Conrad's Africa, in this world the white man finds himself at an ever greater risk of being absorbed into the vortex of deception and corruption that white writing figures as being synonymous with black South Africa. This is the essence of the relationship between Canning and his "black spouse" (Galgut, *The Impostor*, p.55) – the inscrutable Baby. Although the narrator, Adam Napier, notes that "there is nothing very new, or even especially unusual about having a black spouse these days, and it seems gratuitous to be harping on it" (p.55), in his eyes the relationship appears symptomatic of a deeper malaise in South Africa. In fact, so common place has it become for the crossing of racial lines in pursuit of love and sex that Adam Napier himself is soon involved in a complicated relationship with Baby, the black woman whose nickname seems designed to ensure she is freely available for the white man's pleasure.

Thus in Adam Napier's post-apartheid world relations between black and white are inherently corrupted by the imprimatur of past encounters. As he seeks to explain his dilettantism, as a poet who cannot write but with no other visible talents, Napier views South Africa through a peculiarly proto-Marxist prism in which the adulteration of the Rainbow Nation is attributed to its willingness to embrace capitalism. In one of the most perverse ironies in a society that stretches irony and absurdity to breaking point, in *The Impostor* capitalism's close undergirding of the apartheid regime has transferred itself seamlessly to post-apartheid South Africa. In another significant resonance with Coetzee's *Disgrace*, Adam Napier occupies a dichotomous position to his brother's that allows the novel to fully stage the white dilemma in Africa. At one point he speaks of his brother's fear of the coming changes that the end of apartheid would bring, noting that he had toyed with the idea of emigrating. Instead, the brother had stayed on and now "was teamed up with people who were buying old buildings and gutting them or ripping them down and putting up shiny modern apartment blocks in their place" (Galgut, *The Impostor*, p.17). Then, in the kind of comment that reflects a concern present in other recent works, Adam notes that "Gavin had pointed out to Adam that one of their company directors was a black man who was paid a healthy retainer just to stay

at home in Gugulethu while his name on the letterhead brought in legitimacy and investment. There were staggering amounts of money to be made" (p.17).

In the face of such venality, individuals like Adam Napier and David Lurie come to symbolise a kind of lonely last stand, (white) artists holed up in a *laager* (often of the mind) whilst all about them money and the black man dominate. For despite his bouts of introspection, Napier's concerns are essentially related to his loss of meaning and purpose as a white man. In this new world, what themes can the white poet explore? In a society where money dominates, "[w]hat was he playing at? Who did he think he was? ... Maybe the soul of South Africa wasn't a poet; maybe it was a crooked property developer, obsessed with cheap fittings" (Galgut, *The Impostor*, p.20). Therefore, at the heart of the novel is a concern with the fluidity of whiteness in the new nation, an identity that shifts uneasily between opposed poles of power, privilege and defencelessness. In a recent essay entitled "False Start in South Africa", historian RW Johnson (2009) argues a peculiar case in which the Rainbow Nation is re-signified as the very epitome of what the architects of apartheid presaged for South Africa. The violence, corruption and mendacity of the New South Africa are neatly packaged by Johnson as the natural legacy of fifteen years of an African National Congress-dominated government.

The point is not that writers such as Damon Galgut are necessarily engaged in the defence of white privilege, but rather that their writing is inevitably trapped in old relations of production and consumption that loop uneasily back to a recent past of oppression and dispossession in which the white self played a leading role. In Galgut, we see reflected the way white South Africans perceive their place in the post-apartheid nation as a vulnerability that they fear but also cherish and cultivate. Novels such as *Disgrace* and *The Impostor* rehearse complex processes of divestment in which the white self trades in old-fashioned ways of being always in charge for a sense of powerlessness that impacts only marginally on her or his place in the new nation. At the risk of stretching the point, this kind of writing has only an intended readership, one for whom its vocabulary is indelibly stamped with the meaning ascribed to whiteness by the apartheid regime. This is writing that has "responded and articulate[d] a historical, geographical and intellectual moment" (Philips 1997, p.150), however that may materialise. In the specific context of South Africa, such a stance takes the form of always addressing a raced experience of selfhood.

The Impostor exposes a squalid world where the crisis of whiteness is figured as a tussle between acknowledging complicity in the perpetuation of apartheid, finding ways to atone for it and profiting shamelessly from the loss of responsibility for the new status quo. These are themes that Galgut explored with greater subtlety in his earlier novel, the acclaimed *The Good Doctor*. Characters such as Adam and Gavin in *The Impostor* and Frank Eloff in *The Good Doctor* drift aimlessly between an ambivalent commitment to self-truth and the need to make amends for the actions committed in their names, for their benefit in a different time. Remarkably, neither recognises the process as a dynamic one, rather they conceive of it in the way that the 'typical' white South African can understand, as a set of binaries. That, in essence, is the *essential* meaning of whiteness. In *The Impostor*, for example, the coming together of influential black and white people seeking to profit from the transaction results only in despair and destruction. In a narrative turn that ties in neatly with the white narrative of ethical and environmentally attuned ownership that is typical of most colonial fiction, the novel ends when a black man is set loose in the wild, as it were. In one fell swoop, the land accrued and carefully nurtured by a white man for the purposes of creating a natural reserve for animals and vegetation is turned into a vast lunar landscape where bulldozers, tractors and

all manner of machinery reshape nature to the money-hungry desires of a black businessman. In the apocalyptic twist that the white tribe in Africa has long anticipated, the black majority rule results in a metaphoric rape of Africa that resonates with the colonial legacy of a hyper-sexualised black man. Although in *The Impostor* the economic enterprise is in part the product of an Oedipal conflict in which a traumatised white man seeks to get back at his father's unloving parenting by attacking the latter's love for nature, its realisation would not have been possible without the money and contacts of corrupt black politicians and businessmen. In order to exact revenge on his father, Gavin Canning makes a Faustian pact in which he loses all that he held dear; more importantly, he lets down the white race's association with progress and modernity.

In this post-apartheid South Africa the white man has truly lost his innocence. Even here, at the heart of an intimate conflict between father and son, the black man emerges as an agent of destruction. In a sense, one might argue that such narratives posit history itself as a post-apartheid issue, since for individuals such as Adam history begins after 1994, when the white minority government finally lost power to a black majority government. This is 'bad history': adrift, destructive, and discriminatory, and the white man is at its mercy. As he retreats to the Karoo, symbolically the emotional and intellectual core of white South Africa, Adam strives for a return to the nurturing power of land and myth, only to find that he is pursued by a mercenary philistinism that the novel posits as a product of the Rainbow Nation. After all, this is the New South Africa, where "staggering amounts of money could be made" (Galgut, *The Impostor*, p.17). In an uncanny illustration of fact merging with fiction, and fiction transforming as fact, RW Johnson also blames the emerging role of a black entrepreneurial class in post-apartheid South Africa for the rise in unemployment numbers and the generalised collapse of social, political and moral structures (2009).

Working through a set of parameters to which skin colour and racial classification are essential, writing such as Galgut's epitomises the quest by contemporary white South African writers for a sense of relevance and meaning. This is one of the key thematic threads in *Disgrace*, as David Lurie's personal crisis leads him to contemplate his role and place in the New South Africa. As the novel comes to a close he has reached a kind of redemption that is in line with the work's deep ethical streak. Unlike Lurie, who is at the end of his professional career and well advanced in years, Galgut's characters are younger and as such have longer to live in this society which they struggle to comprehend from their ineluctably self-interested viewpoint. As a generation which only recently was asked to carry the history and mythic legacy of the great vision of a White South Africa, notably through their role in the military, they are themselves now in a limbo space between past and future, living in a present where whiteness is under duress. Echoing Coetzee's *Disgrace*, in Galgut's novel the white South African's belonging to this new world is figured through a process of self-imposed exile and abjection.

Reconciled Whiteness: Patricia Schonstein's *Skyline*

Childhood narratives focalised though the eyes of a young person are a staple narrative device of literary writing, as the perspective of the child narrator serves as an ideal framework through which to raise polemic and unsettling themes. In settings such as South Africa it also provides a way of negotiating the heightened politics of crisis that we have discussed above. The concluding section of this paper examines Patricia Schonstein's short work, *Skyline* (2000), a small novel that sets its sights on the grandest theme of the human condition in crisis. In common with the other works discussed here the novel is set in Cape Town – a point I note because it is a remarkable aspect of a large body of contemporary

South African 'white writing'. *Skyline* draws on the viewpoint of a child living in post-apartheid Cape Town to comment on the psychological legacy of war on both old and young individuals. In the process it sets up a rich and vivid depiction of the complex social processes of change and transformation that have resulted from South Africa's 'return to Africa'.

In this Cape Town, Africa has well and truly settled down to stay – in the form of illegal refugees from the Congo and Angola, traders and drug dealers from farther afield and Mozambicans who risk their lives as they trek their way into South Africa through the Kruger National Park. In an increasingly porous world the white city is being changed in radical yet often imperceptible ways, as local and global human flows meet and mix, citizens and aliens coming together in new human geographies made possible by the end of apartheid. In the figure of Bernado, the Mozambican artist and asylum seeker, Schonstein tells the story of masses of people from all over Africa. They converge on a South Africa now perceived as a beacon of hope and possibility, only to find that they are no less welcome here. In a society where unemployment levels among black people are around 40% or higher (Johnson 2009, p.61), such large numbers of foreigners have exacerbated a xenophobic streak endemic to South African society. Yet *Skyline* is undoubtedly one of the most optimistic narratives produced by white writers in post-apartheid South Africa. In *Skyline* the growing numbers of (black) illegal aliens from all over Africa infuse the white city with new life, new meanings, change and renewal. In a politically charged but aesthetically subtle narrative, *Skyline* too foregrounds the Rainbow Nation's political and ethical dilemmas. Here it is not so much the personal but the collective dilemma, for as the recipient of 'black' Africa's generous support in its quest to defeat the apartheid regime, South Africa now faces a difficult quandary. The time has come to reciprocate some of that kindness but its citizens are in no mood to be hospitable. In this context, Schonstein's novel stands out for its willingness to imagine new ways of being South African that recognise the demands imposed on the host as much as on the guest. Despite (or perhaps because of) its intensely intimate focus, the novel betrays its deeply political intention by positing compassion as a radical instrument of change and (self) transformation.

The willingness that Schonstein's characters reveal to embrace the hordes of illegal foreigners is thus atypical of a broader mood and attitude. Searching for new ways of overcoming the old sediment of racist history and new fears of an 'Other' perceived as a threat to the harmony of the New South Africa – refugees, economic migrants, asylum seekers – Schonstein's characters weave together a polyphonic vocabulary that provides points of contact and glimpses into common experiences. In 'Skyline', the apartment block that gives the novel is title, old and new South Africa come together in the characters of the young girl narrator, of Bernado the young Mozambican artist refugee turned economic emigrant, the old Polish survivor of WWII and of a myriad of more or less transient characters. *Skyline* suggests that the building of a New South Africa is to be done not by state decree or political manifesto but by individuals coming together to offer and share hospitality. In this new world, the novel suggests, change will not be painless or problem-free but if shared it will bring its own rewards. As the novel comes to an end, it offers up a hopeful mosaic of life where black and white, young and old, gay and straight all work to add meaning to the Rainbow Nation. If it wears its heart on its pages, it does so with humanity and courage, refusing to succumb to the bleakness of works such as Coetzee's and Galgut's. The irony is that while their characters remove themselves from mainstream society, seeking refuge in the Karoo only to be pursued by the wave of crime, despair and destruction

indispensible to the white version of Africa, Schonstein's protagonists stay on in the grittiest heart of an increasingly fluid and crowded Cape Town.

Perhaps the key to *Skyline*'s optimistic outlook is the age of its narrator, for as a young girl she symbolises the potential of a new future and embodies the open-endedness of the young. "[T]aking the measure of [their] dwelling in a state of 'incredulous terror'" (Bhabha 1994, p.9), *Skyline* privileges a world of loving personal relationships, of friendship and respect, and absurdly but pointedly one where the crime wave affecting the country is almost irrelevant. Schonstein invests in her young narrator the energy of a South Africa free of the social, political and ideological constraints of the past; and in this sense *Skyline* offers up a world in which 'history begins' now, symbolically, metaphorically but meaningfully. One of the most remarkable aspects of Schonstein's characters is that they are, every single one, individuals living on the margins of society – disenfranchised by class, age, gender, nationality or sexuality, citizens whose own subjectivity has long existed on the cusp of law and lawlessness, meaning and meaninglessness.

Conclusion

It is tempting to conclude this critical reflection on recent South African literature, history and the white self by noting that for white people perhaps this experience of selfhood constitutes the first step towards a move into the heart of New South Africa. However, as *Skyline* suggests, it is a journey best undertaken with no set agenda or preconceived notion of entitlement. In words that resonate in post-apartheid South Africa more than ever, Steve Biko wrote in *I Write What I Like* (1978, p.69) that when white South Africans felt ready to engage in a conversation with black South Africans they would need to do so from a genuinely open, though paradoxically intrinsically self-interested viewpoint. It would be in their interest to learn to listen in order to know when and how to speak.

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SECTION III

ORGANISATION AND MANAGEMENT

CHAPTER 9

Emergence, change and precarious systems: A new lens on people and organisation

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Keyword
Organisation, human factors, change, emergence, precarious systems

Abstract
The authors of this paper are members of the People and Organisation (P and O) Research Centre which is a node of the Social Innovation Network (SINet). P and O was formed in response to the need for new, holistic, multifaceted, and innovative research to enhance how we understand the way people organise in environments of complexity and uncertainty. P and O members study the socially innovative organisational strategies that encourage creativity and innovation which are socially and ethically acceptable. In a series of workshops, members determined that P and O's focus can be described as 'change', 'emergence' and 'precarious systems'. In this paper we summarise the research being undertaken by P and O members and reflect on the issues that arise from considering, on the one hand, 'people' and 'organisation', and on the other, the concepts of 'change', 'emergence' and 'precariousness'. This reflective process is being used to strengthen both P and O's focus and its capacity to carry out its research mission as members identify their common commitment to investigating people and organisation through a social innovation lens.

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Introduction

The modern world is characterised by complexity and uncertainty, within an environment of evolutionary and revolutionary change (Sundarasaradula et al. 2005) whose elements are increasingly interrelated (Robbins 1990). New, holistic, multifaceted and innovative research is needed to help us understand how people organise in this environment. Recent research has moved away from strategies seeking mere efficiencies in the production of goods and services, towards 'triple bottom line' strategies that retain the focus on making a profit but are also socially and environmentally responsible (Elkington 1994).

These newer strategies are also socially innovative. That is, they develop concepts and tools to enable individuals and communities to organise themselves in a way which enhances both economic and personal well-being. Understanding people and organisation – that is, the phenomenon of organisation itself, especially its human dimension, not simply the

functioning of various different organisations – is crucial to this endeavour. It means understanding change, both planned and emergent, and coming to terms with the often precarious nature of the systems which support how people organise. Using the research being undertaken by members of the 'People and Organisation' (P and O) research node of SINet, this paper reflects on the issues that arise from considering, on the one hand, 'people' and 'organisation' and on the other, 'change', 'emergence' and 'precarious systems'. While the projects are diverse, they are linked through their commitment to investigating people and organisation through a social innovation lens.

The paper begins by outlining the background to P and O and summarises members' research. It then explains three broad themes underpinning this research: 'change', 'emergence' and 'precarious systems'. Finally it discusses qualities of social innovation inherent in this work and how new approaches to social innovation are enhanced by focussing on these three themes.

Background to the People and Organisation (P and O) Research Centre

In 2007 a new set of research centres was created within the Faculty of Commerce at the University of Wollongong. People and Organisation (P and O), based in the discipline of Management, was one of the research teams that succeeded in obtaining funding. Given members' focus on organising for social innovation, P and O was an obvious choice as a founding node of SINet. Later, when there was a call to consolidate the research centres into a smaller set of more viable units, P and O had developed a reputation for inclusiveness and innovative research into contemporary organisation science. This attracted several new members from less viable groups. P and O thus became a large self-selected group of researchers (many with industry experience) and a wide range of interests and capabilities.

In 2008 members met with the aim of specifying the focus of the centre. Rather than seeking to limit the parameters of members' topics and activities – and the centre enjoyed a very disparate range – it was decided to make explicit the underlying themes of members' research. Simply listing research topics and projects or writing snapshots of individuals' work (as had been done when P and O's website was being created), would not adequately bring out P and O's characteristics as a collective endeavour. The research culture of the university requires that research centres have a coherent focus. A research assistant was employed to interview P and O members and to write a one-page summary of each of their research interests. The resulting summaries provided the starting point for members to work on P and O's collective identity. In addition, a series of brainstorming workshops involving all P and O members was held to work towards a consensus on the group's focus. After several analytical alternatives were considered, the topics 'change', 'emergence' and 'precarious systems', appeared best for summarising members' work. A summary of the thought process by which members collectively arrived at the three topics appears below and in Table 1.

Deriving 'Change': A common feature of most topics being researched by P and O members is that they would be both affected by change and involved in any organisational program requiring purposeful change management. Thus the column in Table 1 headed 'Change' lists the topics of interest to members that would affect, or be affected by, changes to the situation of a study or project under investigation. These include (but are not limited to): human resource management; occupational health and safety; performance management; information security; information/records management; organisational behaviour; e-collaboration; knowledge management; ethics; performance management; workplace communication; leadership; information systems; organisational learning; project

management; risk management; research and development (R&D); strategic management; organisational discourse; industrial relations; and corporate communication.

Deriving 'Emergence': This column (Table 1) was more difficult to construct. However, a further close reading of the summaries of members' research suggested that many members were concerned with the *antecedent conditions or enablers* of change, or the state of affairs immediately preceding change, especially when these conditions or enablers had a chaotic or unpredictable character. The term 'emergence' seemed to sum up this list of contextual attributes. They include: enlightened leadership; expecting to be innovative, creative and flexible; leveraging diversity; having suitable motives; being socially and environmentally responsible; developing trust; not being stifled by processes; working co-operatively; leveraging the social experience at work; having a sense of identity; being prepared for the unexpected; being entrepreneurial; supporting informal knowledge transfer; building social networking; working with complexity; experiential learning; allowing open discourse; crossing borders; and promoting a transforming culture.

Precarious systems: The third common feature of members' research is that many if not all of them work with systems that are not robust or able to be taken for granted without dire consequences. Examples include local politics, healthcare systems, virtual/temporary organisations, international institutions, minority groups, network-centric organisations, cross-sector collaboration, strategic alliances, systems in developing countries, and workers in non-standard arrangements. The term 'precarious systems' sums up both this fragility and also the interconnectedness of these systems.

Table 1 presents the results of this initial group thinking exercise. A blank cell indicates that the research is still under development. Also included in Table 1 are the main industrial, government and community sectors in which the various researchers have conducted projects and gathered data.

Table 1
P and O members' research interests classified according to their links with 'change', 'emergence' and 'precarious systems'

Change	Emergence	Precarious Systems	Industry Context
Human resource management Occupational health and safety	Innovation	Dismissal of Wollongong City Council	Potentially all
Failure of change Performance management	Expecting to be innovative and flexible	Cultural aspects of organisations	Public service
Information security Information/records management	Enlightened leadership; leveraging diversity	Healthcare systems Electronic health records	Health
Organisational behaviour E-collaboration; knowledge management; information systems	Having suitable motives	Virtual/temporary organisations	Films
'Big picture' ethics and human resource management; social responsibility; spirituality	Being socially responsible	Dismissal of Wollongong City Council	Corporate
International project management Cross-cultural studies	Working co-operatively, developing trust	International Institutions	Asia-Pacific Economic Co-operation
Human resource management Performance management	Leveraging the social experience at work; sense of identity	Performance appraisal	Coal mining
Change processes	Being prepared for the unexpected; being creative; storytelling	Large scale change processes	Aerospace
Workplace communication Leadership and management	Valuing so-called 'feminine' characteristics in the workplace; entrepreneurship; informal knowledge transfer	Minority groups Learning groups	Family business
Information systems Knowledge management	Building social networking Environmental responsibility Working with complexity	Network-centric, hybrid organisations	Military
Innovation and change management; organisational learning; project management	Project-based (experiential) learning	Local politics	Local government Manufacturing
Managing risk; government policies on research and development	Enabling cross-sector issues	Cross-sector collaboration	Public sector
Strategic management	not being stifled by processes	Strategic alliances	Asian multinational firms
Organisational discourse	Open discourse	Community	Community service organisations
Industrial relations and human resource management across borders	Crossing borders A transforming culture	HRM systems in developing countries	Developing countries
Human resource management practices; occupational health and safety; quality of working life	Managing diversity	Workers in non-standard arrangements	Services – call centres
Corporate communication	Knowledge transfer processes	Sustainable biotechnology	Biotechnology as firms foster and exploit innovation

Change, emergence and precarious systems: earlier views

In this section we briefly consider what the literature says about the topics of change, emergence and precarious systems with reference to how P and O focusses on them.

Change is a broad topic. While no aspect is *a priori* excluded, P and O members focus on two types of change:

- **change that is sought and planned.** Changes that people in organisations – especially managers – consciously and 'rationally' plan may or may not be achieved.
- **change that occurs in organisations' environments without being sought.**

According to the classical rational view implicit in both academic literature (e.g. Argyris 1965; Argyris & Kaplan 1994; Argyris & Schön 1974; Bennis 1966; Cyert & March 1963; Levitt & March 1988; Lewin 1947; Mayer 1972; Schein & Bennis 1965; Simon 1973) and popular management literature (e.g. Bremer 2006; Collins 2001, Peters & Austin 1985; Peters & Waterman 1982), planned change in organisations involves examining the interacting aspects of an organisation's structures, technology, systems, culture and relationships, so that the effects of change can be foreseen and managed. Not understanding these relationships sufficiently will lead to managers' attempts at planned change being unsuccessful. A particularly problematic aspect of the human side of change is the problem of making planned changes 'stick'. This typically has to do with the ways we overlook how power is embedded in inconspicuous aspects of organisations such as their structures, rather than solely with acknowledged 'change agents' such as the organisation's managers and the consultants it appoints (Ball 1978; Clegg 1989).

The problem of making change stick is related to the broader issue of sustainability which is now of such national and international concern (see for example the Australian Federal Government's Sustainability Charter[1]). Much of the current environmental debate centres on the costs of 'going green'. In many organisations the short-term outlay in converting to a greener way of operating is interfering with the long-term social and environmental benefits of making these changes.

The second type of change is mentioned frequently in the academic change literature – the texts mentioned earlier are examples. It arises from the fact that various environmental pressures emanating from outside organisations affect life within it. With the addition of perhaps only climate change, the list below, elements of which appear in most textbooks, is a good summary of this type of change:

- moves towards more international trade, competition and the globalisation of economic units
- technological change in processes and products
- demands for participative decision-making
- moves towards deregulation, tariff reduction, and micro-economic reform
- economic recessions
- calls for greater gender equality in employment opportunities and career development, including more non-traditional stakeholders such as women, ethnic minorities, governments, consumers, conservationists
- rises in the cost of capital.

Most organisations work hard to deal with the second form of change, constantly monitoring the business environment, especially competitors' products and strategies. Yet some highly successful organisations do not do this. They actually use the first, internally-focussed

[1] http://www.aph.gov.au/house/committee/environ/charter/

approach to change to manage the second. Apple, the designer of the iPod, iPhone, and other highly intuitive software, is an example of success produced through rational planning, high internal and external secrecy, and bureaucratic reporting structures. However, while these rigid controls are important, Apple also uses organisational and physical structures that promote an atmosphere of creativity in particular organisational units and in particular locations within its buildings. According to Morrison (2009), these strategies have been so successful that Apple has been able to "reject touchy-feely consumer focus groups and efforts to imitate successful products from other companies".

Emergence

According to Wikipedia[2], emergence is the way that complex systems and patterns arise out of a multiplicity of relatively simple interactions. Emergence is central to the theories of integrative levels and of complex systems in philosophy, systems theory and science. An authoritative definition of emergence has been attributed to Newman (1996) in his efforts to counter the dominant reductionist approach of rationalist thinking. Newman proposes that non-reductionist emergent properties are an essential aspect of chaotic, non-linear, dynamic systems. In our view, 'chaotic, non-linear, and dynamic' is an apt depiction of most situations involving 'people and organisation'. Emergent properties are qualitatively different from the other properties of chaotic systems. They cannot be predicted nor anticipated from these other properties and are related to the complex whole of the system and not to its component parts. Although chaos theory has a basis in mathematics, this concept of emergence provides an apt metaphor for valuable outcomes of organisational activities that were not intended but are nonetheless valuable. In fact these unintended outcomes often work better than those that were intended.

Snowden (2002) suggests that there is a place for both ordered and emergent change but that they are different and need to be treated differently. He describes ordered change as being possible in situations that are simple or somewhat complicated to a controlled degree with predictable outcomes. Organisation can thus be considered mechanistic. On the other hand emergent change occurs in unordered situations and only makes sense in retrospect. Here organisation must be more organic where attractors and boundaries replace rules and regulations, to use terminology from complex and chaos theories.

Particularly relevant to people and organisations are three specific instances of emergence: emerging economies, emergent strategy, and emergence in entrepreneurship.

- **Emerging economies** Several members of P and O are engaged with issues of management in emerging economies. Typically, these projects illustrate the difficulties of adapting systems established elsewhere. The emergence of 'raw' forms of capitalism in the former Soviet Union is an obvious example. In P and O issues of emerging economies are examined on several levels, but particularly the level of individuals and organisations. Path-dependence theory and institution theory are among the many frameworks that members use in this area.

- **Emergent strategy** (also called realised strategy) is a pattern of action that develops over time in an organisation in the absence of a specific mission and goals, or despite a mission and goals. An emergent strategy or realised strategy differs from an intended strategy. Mintzberg (1994) argues that strategy emerges over time as

[2] www.wikipedia.com

intentions collide with and accommodate a changing reality, and that this may be used to help organisations learn. Mixing the deliberate and the emergent strategies in some way will help the organisation to control its course while encouraging the learning process. "Organisations ... [may] pursue ... umbrella strategies: the broad outlines are deliberate while the details are allowed to emerge within them" (Mintzberg 1994, pp.23-25). The concept of emergent strategy has been said to take a better account of the reality of strategy making and strategy implementation than classic, rational models of strategy-making such as strengths, weaknesses, opportunities and threats (SWOT) analysis. However, practical implications of emergent strategy tend to be overlooked because they have 'feminine' overtones (Downs, Durant & Carr 2003). In other words, they require an understanding of the 'soft and fuzzy' side of organisations.

- **Emergence in entrepreneurship** Emergence is seen in the way that entrepreneurs recognise and develop opportunities. Both are notoriously difficult to pin down as processes. Ardichvili and Cardozo (2000) nevertheless argue that entrepreneurial opportunities are discovered through recognition rather than purposeful search, do not require an exceptional level of creativity, and are not likely to involve a prior knowledge of the ways to serve markets. Development, if anything, is where the less definable processes of emergence lie.

A new and promising idea for dealing with emergence is the notion of the tipping point (Gladwell 2000) when an idea, product, or system suddenly becomes popular for no obvious or predictable reason. Some examples of tipping points, some more trivial than others, include the sudden popularity of sun-dried tomatoes, ugg boots, Crocs and pet rocks. A 'point that has just tipped' is green issues, especially organisations' responses to climate change. Perhaps green issues came to prominence in the light of the growing awareness of the need for more general corporate social responsibility. A possible tipping point to come may be parents' growing awareness, anger and mobilisation about the sexualisation of childhood (Lunn 2009).

Precariousness

Precariousness invokes the notion of fragility. When considering people and organisation we see three aspects of fragility or precariousness: arising through novelty, through inherent conflict or tension, and through environmental pressure (as well as some others that are hard to classify).

- **Fragility through novelty** Precarious systems are often fragile simply because of their novelty. It is still unfamiliar for organisations and governments to incorporate non-economic factors (such as the need to preserve the planet) into policy-making, so that systems being considered (such as the Emissions Trading Scheme) are fragile at least in part because of their newness.

- **Inherent fragility** Secondly, there may be an inherent fragility in systems. For example, solidarity is important in nations but there is simultaneously a need for diversity (Soutphommasane 2009). This is reflected in organisations in the need for group cohesiveness. At the same time there is the tendency for various group pathologies to arise (such as group-think) in the presence of too much cohesiveness.

- **Fragility through environmental pressure** Thirdly, systems may not be inherently fragile, but may become so as a result of pressure from the environment. Democracy in

a country with a long history of press freedom, participative mechanisms in decision-making of various kinds, and separation of powers is much less fragile than democracy imposed by an occupying power in a country with no such traditions.

Some other kinds of precariousness are hard to classify, and they may have elements of all three kinds of precariousness. For example, some long-established systems have been shown to be surprisingly fragile, which makes their failure surprising. Examples include the recent economic downturn which took governments, financial institutions and business owners alike by surprise, despite earlier warning signs. In our own territory we have seen the educational market for international students come under threat, despite our awareness of poor practice in parts of the system.

Leveraging specific viewpoints

From the descriptions and exemplification of the three elements presented above, it becomes apparent that in P and O a specific perspective on change, emergence and precarious systems predominates. This perspective can be described as follows.

Change Whether emergent or deliberately identified and planned, change management needs to be a holistic process which incorporates a broad range of expertise, including: risk management, knowledge management, project management, diversity management, occupational health and safety, human resource management to ensure sustainability (economic, social and environmental), organisational learning and innovation.

Emergence Organisations can have both mechanistic and organic natures. Leveraging the latter, an organisation acquires the ability to instinctively sense opportunities and threats in the environment and, on the fly, find the capability to respond appropriately to mitigate against the threats and take maximum advantage of the opportunities in creative and innovative ways without being hampered by the formal organisational machine.

Precarious systems Organisations need systems (operational, management, social, technical and socio-technical) that can survive and prosper through emergence and change and support organisations in doing so. This concept acknowledges the fragility of many systems and organisations in the current diverse and changeable environment.

The value of focussing on change, emergence and precarious systems

The P and O's 'take' on change, emergence and precarious systems is valuable because of its capacity to create synergies. It directly influences members' work and also opens up unsuspected links between topics that members are working on. This means that they can see them in new, broader ways. Each of the three components from the perspective discussion directly suggested some research topics and even potential consultancies for P and O members.

Change It was clear that the research areas of all members of P and O had some relevance to organisational change. This could be interpreted to mean that any organisational change initiative should include attention to issues in many of these areas. Thus change management should incorporate consideration of human resource management, information systems, knowledge management, project management, organisational learning and so on. As a result, there could be opportunities for all P and O members to contribute to improvements in the management of organisational change initiatives from their own area of expertise.

Emergence It seems that emergence is a much less tangible concept than change; drawing out elements of emergence from the summaries of P and O members had not been as easy or obvious as for the first topic of change. However, it is often pointed out that emergence is likely to occur in environments and cultures that support people who are creative and innovative, and many members' projects addressed these issues. These environments would be characterised by enlightened leadership, diversity, social and environmental responsibility, allowing open discourse and transformations. Supportive cultures tend to have attributes of trust, flexibility, learning, informal knowledge transfer and a sense of identity. Thus new topics suggest themselves that relate to the environment from which sustainable and innovative products and processes are able to emerge.

Precarious systems Although not a commonly used term, the expression 'precarious systems' has become meaningful to P and O members. The more members looked around the more they recognised the precariousness of many of the systems that they are investigating. Many of the environments we work in have conflicting demands and so are complex and fragile. Examining these fragilities is a first step to knowing how to make them less fragile.

Productive links

The process of examining the work of P and O revealed a wealth of links via the three elements of its focus: change, emergence and precarious systems. Indeed many of the situations where P and O members have conducted research foster both planned and unplanned change, and also exhibit the complexity that is conducive to emergence. There is obviously a close relationship between emergence and unplanned change, so that one could regard 'emergence' as a sub-category of 'change'. However, as noted earlier, members consider that emergence is worth considering in its own right since it has properties relating to the complexity of organisational contexts and the holistic nature of systems, particularly precarious ones. There is also a link between the emergent type of change and precarious systems. Members can thus bring together the three areas of focus in the statement: emergence takes place in precarious systems where change is continual and disruptive.

The studies of P and O members that span boundaries demonstrate the interconnection of change, emergence and precarious systems. For example, the project on multi-national corporations' human resource management practices in developing countries shows that problems can arise when change is planned using frameworks from developed countries. More appropriate solutions to problems can emerge from within the 'host' population even though many of their systems are inherently precarious and exist within fragile environments.

While this project clearly demonstrates all of the interconnected elements, it is not alone in this regard. As the following examples show, many other P and O projects illustrate more than one of the themes of 'change', 'emergence' and 'precarious systems'.

- **Planned change** The first project listed in Table 1 involves the sacking of an elected local government body and replacing it with administrators who replace a chaotic situation with a planned approach to the change. Time will tell whether this is sustainable and whether a demand for the reinstatement of an elected council will emerge.
- **Unplanned change** The project on healthcare reveals the fragmented approach to change in that area. While change is planned at the State government level, what actually happens at the coal-face can be quite different. This project recommends the value of enlightened leadership and diversity in this precarious system.

- **Sustainability of change** The project on workplace communication and its links with the slowness of women's advancement at work points to the difficulties of making planned changes stick.
- **Emergent economies** The project that examines International Institutions in APEC is strongly focussed on the path of emergent economies in our region.
- **Emergent strategy** The project on project-based (experiential) learning is an example of a deliberate process to allow strategy to emerge through the learning that takes place as projects unfold.
- **Emergence and entrepreneurship** Studies of entrepreneurship in indigenous communities in Australia also show the difficulty of adapting systems established elsewhere. The concept of emergence is a useful construct to guide understanding of how indigenous entrepreneurs develop opportunities into entrepreneurial ventures.
- **Novel precarious systems** What is new is often fragile simply because of its novelty, as shown in the work on transferring HRM knowledge in multinational companies where the host country and/or the subsidiary have a less robust set of HRM practices than the parent company.
- **Inherently precarious systems** The inherent fragility of systems is exemplified in the dual positive and negative nature of 'familiness' in family firms (Habbershon & Williams 1999; Habbershon, Williams & MacMillan 2003).
- **Systems made precarious under pressure** Health, environmental issues and cross-organisational systems of all kinds are precarious since they face pressures from the environment which make them particularly fragile.

Conclusion

This discussion is by no means a comprehensive appraisal of P and O but rather provides illustrations of its area of research focus to give the reader a sense of the breadth and depth of views that we bring to the topic of people and organisation. We conclude with some more general observations.

First, many of the emergent attributes are stereotypically feminine characteristics, for example co-operation, multi-tasking and managing diversity. These skills tend to be overlooked in organisations whose executive level is male-dominated with a consequential homogeneous and competitive work culture. Alternatively, women exercising these skills may find that they receive less credit for them than men do because they are regarded as natural for women.

Second, P and O members use a variety of research methods often in combination with each other. In particular several members realise the importance of discourse analysis research in pinpointing and following emergent phenomena such as those associated with 'tipping point' changes.

Third, it is expected that P and O members' work will throw new light on previously established concepts. For example, shifts in the 'frontier of control' and the 'psychological contract' established concepts (from industrial relations and human resource management respectively) can be extended through a consideration of the emergent properties of non-traditional entrepreneurial ventures.

Finally, it appears that the very exercise of finding the underlying themes to members' work has been an enabling one. Creating P and O has already been a 'silo-breaking' exercise. However, for members to consider their projects at a higher level of abstraction via the

'change, emergence and precarious systems' has freed their thinking to consider new angles of investigation and new combinations of their talents.

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CHAPTER 10

Examining the social processes of 'Innovation' to inform the development of a new framework for making sense of 'Social Innovation'

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Keywords
Social innovation, innovation, Socratic dialogue, industrialisation, technology, well-being

Abstract
In the face of increasing pressure to change and adapt to the needs of highly competitive business markets, it is not unusual for management to focus on the commercial payback on technical innovations and to downplay social processes. Typically, company survival is explained in terms of an 'innovation imperative' where new products and services are part of the dynamic business environment for securing and maintaining competitive advantage. Historically, the focus has been on how to translate innovations in science and technology into commercial applications. We contend that whilst largely downplayed, social processes have always been essential to understanding innovation and that with the growing public concern with societal well-being, there is an increasing interest in the broader elements associated with social innovation. From a selective historical examination of innovation, we examine the conceptual links and various attempts to delineate the 'social' and 'technical' aspects of this process. Some of the earlier academic work on the social shaping and social construction of technology is considered and the use of Socratic dialogue as a tool for accommodating different viewpoints in assessing processes of innovation is discussed. We conclude by calling for more debate and critical assessment on this concept of social innovation and the need to clarify how this contrasts and compares with related concepts of technical and business innovation.

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Introduction

Theories of innovation have been at the centre of academic concern for a number of decades. Adam Smith's (1998) classic book on how to generate wealth stimulated a raft of research into

aspects of innovation and productivity at work. Burns and Stalker's (1961) seminal work on *The Management of Innovation* highlights the importance of organisational design on a firm's ability to innovate. The focus of these studies is largely on the exploitation of new ideas in the commercial realisation of business innovations. For example, Bessant and Tidd (2007, p.29) summarise innovation as: "the process of translating ideas into useful – and used – new products, processes and services". These innovations range from incremental improvements to radical change, and comprise: product innovations; service innovations; process innovations; management innovations; and market innovations (Andriopoulos and Dawson 2009, p.31-33). This emphasis on commercial concerns raises questions about how these may compare and contrast with assumptions that underlie the emerging concept of social innovation. In our exposition of social innovation, we aim to uncover some of the similarities with previous concerns and interests in integrating innovation into the human experience (Orlikowski 1992), as well as show how a shift in emphasis can shed useful insight on how to promote and develop innovations that provide new and novel ways of tackling 'problems' which provide collateral outcomes that will ultimately benefit society as a whole. Whilst company innovation remains rooted in the world of commerce and competition, social innovation is linked to notions of social beneficence and change that supports the well-being of people in organisations, communities and society.

Innovations in science and technology have led to a range of different products and services that have both improved (e.g. community health) as well as those that have threatened the life of others through the development of ever-more sophisticated military equipment. There are spin-offs from military research and space programs that can have major social benefits, such as developments in materials science and knowledge of advanced compounds, which can be used to improve construction, the insulation of homes and so on. Similarly, one could anticipate that innovations with good social intentions could result in unanticipated outcomes, such as the well-known example of the introduction of rabbits into Australia. We therefore contend that innovations driven by social or commercial concerns may produce unexpected outcomes, and that whilst influenced by objectives are not determined by them. In other words, whilst commercial innovations may compliment social developments, these two types of innovation can also come into direct conflict.

One example is the development of pharmaceutical products to make a profit and the drive for low cost drugs to alleviate health problems in the developing world. In these cases, social innovations may compete with hard commercial ventures and be a threat to business objectives. Under such circumstances, socially responsible and environmentally beneficial innovations may be stifled and patents secured in order to sustain market domination for certain types of products and services. For example, Mike Cooley (1982), at the Lucas Aerospace Combine, showed in the 1980s how commercial products are often purposefully developed to require higher levels of maintenance since most of the profit is based on the need for users to replace products or components over ever-shorter timeframes. From an advanced engineering perspective, this is clearly not an innovation in technical performance. It is a business innovation to secure market share and maintain income flows as customers need to replace worn components. They demonstrate how it is possible to design irrigation systems that require little maintenance. While this would not be technically difficult to achieve, the experience highlights how business market pressures can frequently skew innovations in the development of new products and services

away from those that support social well-being and towards the profit needs of companies.

The following sections examine the social dimensions to innovation through a brief historical analysis of the industrial revolution in Britain. We examine the link between the social and technical aspects of innovation and identify how the scope of our definition is important in delineating our phenomena of interest. Some of the earlier academic work on the social shaping and social construction of technology is considered and the use of Socratic dialogue as a tool for accommodating different viewpoints in assessing processes of innovation is discussed. We forward a provisional model for making sense of social innovation that integrates two key knowledge domains and highlights the complex processes involved. We conclude by calling for more debate and discussion on this emerging theme of social innovation that links to other topical areas, such as social business, social entrepreneurship, social capital and corporate social responsibility.

A brief history of Industrialisation: the social dimension

In the transition from a mainly agrarian society to an industrial economy (late 19th and 20th century), social factors were critical to understanding processes of innovation. This historical period was marked by major changes in the relationship between nations, our attitudes to work and the family, and to the ways in which we make sense of the world in which we live. For example, during the early phases of industrialisation considerable emphasis was placed on the effective utilisation of machinery (Dawson 2003, p.26). The new industrial entrepreneurs were inventors, quick to adopt new ideas and to find new ways of doing things. For example, Richard Arkwright established a mill in Nottingham that used a water-powered spinning frame that he had developed. Steam provided the basic source of power for mechanisation (Thomas Newcomen built the first usable steam engine in 1712 which was considerably improved in 1781 by James Watt). The harnessing of steam power to newly developed machines enabled rapid improvements in productive output. The abundance of rich mineral resources, particularly in coal and iron ore, led to the construction of bridges and canals, the building of ships and the development of railways. George Stephenson built the first practical railroad locomotive in 1829 and his famous 'Rocket' could travel at 36 mph. New industrial towns developed around Glasgow, Newcastle, Manchester and Birmingham, and new forms of industrial organisation were imposed on workers seeking employment in these growing urban centres. In its infancy, the industrial revolution offered wealth to the new industrial owners and hardship for working families who often had to suffer long hours and poor working conditions for little pay. Rapid urbanisation brought with it many social problems and prior to the UK *Factory Act in 1833,* many people – including children – suffered under unregulated factory regimes (Cooke-taylor 2009). During this time, employees had little say about the changes imposed on them by owner-managers other than through classical forms of resistance, such as industrial sabotage (Dawson 2003, p.27).

Processes of innovation were central to the industrial revolution which, through the development and refinement of 'steam power', transformed the way people worked, lived and travelled. It also lowered the cost and increased the availability of products and services. Interestingly, the innovative steam engine – the major driver for change – was not a specific technical innovation but more of a synthesis of discrete knowledge domains. In this example, the control mechanisms associated with the watchmaking industry, together with the skills and knowledge associated

with boiler construction (developed as part of the brewing industry), and the expertise to produce finely-honed and accurate barrels in the design of cannons (for the military) were all brought together in the development of the steam engine. These three domains of knowledge had existed for some time but there had been little cross-fertilisation of ideas. In linking control mechanisms with boilers (that can hold steam under pressure) and engineered barrel technology (for the design and development of pistons), it was possible to harness the power of steam and this innovation subsequently brought about radical social change (Andriopoulos and Dawson, 2009, pp.360-1). In this example, we see a mutual shaping of the social and technical in the processes of innovation that bring about significant change. As Hobsbawn (1969, p.60) notes:

> The early Industrial Revolution was technically rather primitive not because no better science and technology was available, or because men took no interest in it or could not be persuaded to use it. It was simply because, by and large, the application of simple ideas and devices, often of ideas available for centuries, often by no means expensive, could produce striking results.

Throughout the 19th century conditions for factory workers were hard and there were considerable health hazards from the accumulation of large numbers of people in the new urban centres. In fact, the development of the oval glazed sewerage pipe was one of the most significant social innovations in this period, as it improved sanitary conditions and reduced the health risks of urban living. Nevertheless, factories presented hazardous working conditions and relatively poor wages. Henriques (1979, p.76) captures the plight of children working in the cotton, flax and woollen mills of this period: "there were accidents and industrial diseases. Machines were too close together and children drowsy from fatigue, caught their hands, or lost their fingers while cleaning moving machinery during mealtimes". In England, the *Ten Hours Bill* and other forms of legislation were implemented to improve the well-being of employees and in particular, the treatment of children in the workplace (see, Kydd, 2010).

Although social processes have always been an essential part of the successful uptake of new innovations, much of the emphasis in the 20th century has been on innovations for commercial success. The well-known study by Trist and Bamforth (1951) illustrates how it was only when the new longwall innovative methods of coal mining failed to produce their expected business benefits that recognition was given to the importance of the social dimension (see also Trist & Murray 1993). In recent years, the emphasis has shifted from a commercial focus towards a greater recognition of the importance of pursuing innovations that are commercially viable whilst also accommodating the needs of societal well-being. Changing contextual conditions, as well as media coverage and public debate, have all raised public awareness about social and environmental issues. Moreover, with the growing disparity between top income earners and the rest of the working population, the assumptions behind the drivers for economic prosperity are being called into question. New bodies, such as the *Institute of Contemporary Scotland*, have emerged and developed with the aim of supporting social innovations that improve the education and well-being of individuals, groups and communities in economically constrained and remote areas. Thus, the 'economic' and 'technical' imperatives that have long been assumed as the drivers for innovation are now being questioned with the re-emergence of social issues, the rise of the social entrepreneur (Leadbeater 1997) and notions of social business (Yunus 2008).

Definitional scope of the social and technical dimensions

One question that arises from our brief examination of innovation centres on whether a distinction can be made between the social and technical aspects of this process. Also, whether there is value in making a distinction between the purpose and intent of an innovation. For example, does a well-intentioned innovation that ultimately has a destructive capacity warrant the label 'social innovation'? Furthermore, we suggest that considerable confusion can arise from debates between protagonists where the difference is largely of definitional scope (not arguing about the same thing) rather than more substantive matters. In this case, it is worth looking briefly at some of the debates around technical innovation. For example, a central concept in the sociology of technology perspective is that of 'interpretative flexibility' (see MacKenzie & Wajcman 1999; McLoughlin 1999). From this perspective it is argued that science and technology can be used in a number of different ways in the design and development of new products and innovations. At the outset of this process, the range of possibilities and options for design are as broad as our interpretive abilities allow. However, as we hone in on our choice of designs and reject other possibilities our minds become more focussed on a common understanding of what an innovation can and cannot do. This process – of moving from a wide range of choices and options towards particular technical developments – is referred to as 'closure' (the closing off of other possibilities). Once a particular perspective of a technical innovation becomes established and commonly accepted, then it is seen to have stabilised. Pinch and Bijker (2000) discuss the use of pneumatic tyres on bicycles as an innovation that took some time to be socially accepted by the public, as for some time it was viewed as being an unsafe and rather ugly addition ruining the symmetry of the bicycle (see Pinch & Bijker 2000, p.709). Today, however, it would be difficult to imagine a bicycle without pneumatic tyres.

So where does this take us? At one extreme, all innovations could be seen to be social insofar as they represent social processes and cannot be viewed as a discrete technical artefact; at another, a broader concept of what constitutes the 'technical' could lead us to consider all major innovations as technical innovations that have various social effects when they are taken up and used. What becomes important is our definitional scope. In other words, what matters is the extent to which our conceptualisation of the 'technical' involves social elements and/or the stages at which we incorporate notions of the 'social'. Do we consider the conceptualisation and translation of new ideas as essentially a technical, social, or mutually shaping process? What is the relationship between these dimensions in the design and development of innovations? These questions are not easily resolved and may be further complicated as innovations developed in one context may become stabilised, de-stabilised or reconfigured in another context. Users may adopt products and services in ways that were never intended by the developers and the experience of users may feed back into future developments and innovations. In circumstances where competing and changing belief systems exist, then the direction and use of innovations are likely to vary.

In understanding these social and technical dimensions, the key is not agreeing on a common dividing line between the social and the technical, but rather in understanding that there will always be interplay between the more material elements of innovations and the social processes that inevitably form part of their design, development, uptake and use (McLoughlin & Dawson 2003).

Conceptualizing social innovation

As we have seen, innovation can be conceptualised in several different ways. We suggest that a good starting point is to view innovation as 'new ideas that work'. This differentiates innovation from improvement (which implies only incremental change); and also from creativity and invention (which are vital to innovation but lack the hard work of implementation and diffusion that make promising ideas useful). For Bessant and Tidd, successful innovation is a complex and difficult process that involves transforming ideas into new products or services that 'make a mark' (2007, p.440). Their emphasis is largely on the profit-driven version of innovation but they do consider social entrepreneurship in discussing the growing public concern for greater Corporate Social Responsibility (CSR). They argue that these social entrepreneurs seek innovations that make a social difference, are socially valuable, and that improve the health and well-being of society. Social entrepreneurs do not measure success in terms of performance and profitable returns on investment but instead aim to achieve long-term changes of significant social value. A good example of this would be the Aravind Eye Care system in Madurai, India, that performs over 200,000 cataract operations per year. Interestingly, in a manifesto for social innovation, the *Young Foundation* (Mulgan 2006, p.5) notes that it is surprising how "little is known about social innovation compared to the vast amount of research into innovation in business and science". Yet, as already shown, innovations that bring about significant change are necessarily composed of both social and technical dimensions, and they are not devoid of social processes in the creation of new ideas and their implementation and broader diffusion. Spotlighting these social processes and their place in technological and organisational change as well as the intentions and agendas behind these developments helps us to improve our understanding of this concept of social innovation. As Josephine Green (2005, p.18) states: "if you only concentrate on technology research then you invariably get technology innovation, but if you also research the social and the cultural, then you get social innovation. Technology and social innovation promises a more balanced quality of life and a more inspiring future".

But once again ambiguity around this concept of social innovation can obfuscate rather than clarify debate. Social objectives are a common driver behind discussions on what social innovation is and how it should be defined. However, there can be different intentions behind the development of innovations ranging from business, economic, political, social or militaristic. Social innovations often aim to contribute to the welfare of society and to improve the social capital of people in organisations and communities. Such innovations may involve using existing skills and knowledge in innovative ways to meet social goals, or using existing or new technologies in new ways to improve social circumstance by addressing domestic, infrastructure or environmental goals. Consequently, whilst there is a mutual shaping of the technical and social, the economic and political dimensions also come into play in securing the uptake and development of these innovations in the pursuit of well-being. For our purposes, we commence with a simple definition, namely: *Social innovation refers to new ideas that meet social objectives, often in conjunction with other organisational, technical or scientific goals*. Defined in this way the term has, potentially, very wide boundaries – from gay partnerships and new concepts of 'family' to new ways of using mobile phone text messaging, and from new lifestyles to new products and services (Mulgan 2006, p.9). It can occur at several different levels of society, such as: broad communities and regions (e.g. EEC); the nation state; regional areas within countries; and local communities.

Within business organisations, social innovations may occur across industries and industry sectors, within multinational companies, at the organisational level and at the local branch, plant or site operations. An organisation's ability to innovate is necessarily a result of the collective capabilities of its individuals and their activities and relationships in supporting the organisation to reach its business goals. The social system internal to the organisation is fundamental to the development and adoption of innovations, because without social sanctions the changes necessary to achieve successful integration of new or different regimes or technologies are likely to fail. The organisational context presents a pertinent parallel to broader social issues in the regional and national adoption of technologies and innovations. Social innovation within organisations is therefore a confluence of factors across the various domains in the internal environment, which are further moderated by numerous contingencies in the external environment relative to the social concerns and interests of organisational participants. As such, social innovation is more than just Research and Development (R&D) or product and process developments; rather it is an innovation that recognises an essential commitment to the people to whom the change seeks to contribute. Whilst business innovations remain rooted in the world of commerce, social innovations seek social well-being and the public good, and they attempt to resolve economic, social and environmental challenges and not simply to provide market rewards.

To make sense of social innovation, we offer a synthesis which integrates two key knowledge domains. We contend that innovation processes and social processes can be characterised as two distinct fields of knowledge that interlink and overlap in practice. Whilst the emphasis and focus can vary, we argue that these domains come together as a complex event that is captured by our proposed conceptualization of social innovation (see, Figure 1). An event which occurs in a complex social system will inevitably have multiple dimensions. In order to manage that inherent complexity we propose that social innovation has four fundamental elements by which it can be understood. These consist of: i) the *people;* ii) the *challenge* (which may be a problem or an opportunity); iii) the *process* (by which that challenge is negotiated and understood); and iv) the *goal* (the resolution of the challenge and hence increased social well-being).

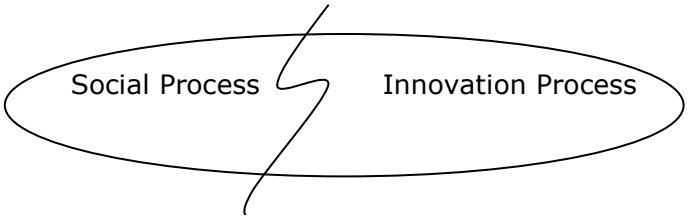

Figure 1. Conceptualizing social innovation as a complex event

Each of these four elements is a source of complexity within themselves. The *people* involved in these processes may be part of a formal, informal or spontaneous group that are linked by special interests, common goals or a shared agenda. It is suggested that the need for cohesion and delineation are fundamental to the successful management of social innovation projects. The *challenge* may be either a problem or an opportunity for the group. In situations where the resolution of the challenge involves ambiguous new strategies, then concepts or tools may be required to aid clarification, negotiation, and prioritisation. The challenge may be internal or external to the group, and it may be radical or apparently intractable, disruptive, incidental or dynamic (shifting). The *process* will necessarily be complex, contingent on context, culture and

politics, and it is likely to be further compounded by functional and relational issues. It may be spontaneous, radical, fragmented or emergent, but it will ultimately be unique. The *goal* of social innovation is not about delivering breakthrough technologies or novel scientific advances, but rather to resolve social challenges that will advance social well-being. The management of these innovations will require iterative negotiations to re-evaluate resolutions and outcomes to ensure fit with the community and the continuous inclusion of shared knowledge, evolving perspectives and interactive experiences. An example of social innovation can be seen in the use of song and dance as a method to deliver health education to illiterate communities in remote Indonesian islands to overcome preventable chronic diseases and ultimately to improve social well-being.

Another useful illustration is provided by the micro-credit financing initiative of Muhammad Yunus (founder of Grameen Bank) who has also developed the concept of social business (Yunus 2008). He has demonstrated how social good and business success need not be in conflict but can in fact service each other. He identified a group of entrepreneurs who had a common goal and shared agenda around the issue of securing funds for business activities. However, these aspiring entrepreneurs were unable to secure funds from the traditional banking sector. The challenge was how to support economic and social development from below and develop an innovative solution to these financial barriers. The process involved examining the issues and engaging in open dialogue, and the goal centred on resolving impediments to entrepreneurial activity. This social innovation was achieved through the development of a micro-financing system that provided the necessary funds to promote entrepreneurial activity and generate economic growth. In this case, it involved identifying a need that conventional business saw as an unfeasible commercial venture and then implementing an innovative solution that enabled the energies and ideas of those wishing to be innovative to be realised. This has stimulated activity and growth in an area that was previously unable to innovate due to lack of funds (see Yunus 2008). These achievements of Muhammad Yunus were recognised in 2006 with the award of a Nobel Peace Prize.

This case example illustrates the need for interpretive flexibility and dialogue to enable complex interrelationships to contribute to the patterning of goal determination. A shared focus through common agendas and shared expectations is likely to provide some boundaries for the group; however priorities and differing experiences mean that interpretations of the nature and scope of the problem will vary. As such, open dialogue, constructive negotiation, and reflective decision-making are essential tools in the management of social innovation, since it is dialogue and not design that is central to the processes of social innovation. In the section that follows, we propose that Socratic dialogue can be used as a useful tool in sustaining this type of open and reflective dialogue.

The contribution of Socratic dialogue

Over the last 30 years there has been an ongoing interest in the place and use of dialogue in management processes. David Bohm, an American-born quantum physicist, made an important contribution in his reflections on thought and dialogue (Nichol 2002). He forwarded the notion that thought is not an individual but a collective phenomenon and that stories create dialogue space within which various meanings may flow (Bohm 2000). He contended that ‘free space’ – under what became known as the ‘Bohm Dialogue’ – could accommodate different personal beliefs and aid more effective communication. In the case of tackling ethical dilemmas,

Maclagan (1998, p.48) argues for the use of the dialogical as opposed to traditional judgemental approaches to decision-making, as this enables individuals with conflicting views to reflect on those of others. The use of dialogue has also been taken up in a number of key management areas (see Isaacs 1993; Jacobs & Coghlan 2005, and Heracleous &Barrett 2001) such as leadership development (Mirvis & Ayas 2003), organisational learning (Schein 2003) and knowledge management (Kakabadse, Kakabadse & Kouzmin 2003).

Peter Senge (2003), in his book *The Fifth Discipline*, promotes dialogue as a way to achieve a common understanding and reduce conflict. Senge (2003, p.10) notes that: "The discipline of team learning starts with "dialogue," the capacity of members of a team to suspend assumptions and enter into a genuine "thinking together". To the Greeks dia-logos meant a free-flowing of meaning through a group, allowing the group to discover insights not attainable individually. When these have been attained, Senge suggests participants are more likely to listen more effectively and to contribute more constructively to the development and evolution of ideas and the arrival at an agreed position (see also Schein 2003). He also explains how this form of dialogue differs to contemporary discussions and debates between individuals and groups then tend to be rooted in what he terms as 'concussion' and 'percussion' where the aim is to persuade people over to accepting 'your ideas'. As he explains: 'literally a heaving of ideas back and forth in a winner-takes-all competition' (Senge 2003, p.10). This is similar to the Socratic dialogue techniques which contend that goal evaluation can best be achieved through the mutual reflection and critical enquiry by participants of their own position, as well as of the position of others (see Nelson 1940). In so doing, a forum for communication is established that can facilitate sustained and constructive dialogue. Socratic dialogue requires that participants go beyond reflecting on their own perspective and relinquish previously held views and refute previously held beliefs. Unconscious perspectives and implied or assumed knowledge must be made explicit to ensure that all information is available for critique. Exposition of such tacit understandings ensures that knowledge is accessible to all participants. In this way curiosity and open-minded reflection are encouraged (Skordoulis & Dawson 2007, p.1003).

Too often decisions are made on the basis of partial understanding, limited data and unreflective assumptions about people and organisations. We propose that the Socratic dialogue technique provides a useful method for ensuring more reflective decision-making that involves the active participation of people in the process of social innovation. Although it is not possible to give a full explanation in the space provided here, a lively Socratic dialogue allows active participation by all. It also requires a capacity for self-examination, reflection and humility in 'knowing when one does not know'. When thinking Socratically, people discover that they cannot clearly define ideas and concepts that they previously held with certainty. This awareness in turn inspires further curiosity and open-minded reflection, as the quotation below illustrates (West & West 1998):

> I came to see that, though a great many persons, and most of all he himself, thought that he was wise, yet he was not wise ... so when I went away, I thought to myself, 'I am wiser than this man: neither of us knows anything that is really worth knowing, but he thinks that he has knowledge when he has not, while I, having no knowledge, do not think that I have. I seem, at any rate, to be a little wiser than he is on this point: I do not think that I

> know what I do not know.' I tell you that no greater good can happen to a man than to discuss human excellence every day and the other matters about which you have heard me arguing and examining myself and others, and that an unexamined life is not worth living. (Socrates in Plato's Apology)

In this exploration of social innovation we have developed a perspective which avoids the commercial agenda typically associated with innovation. We are seeking to develop a theoretical position and conceptual model that can provide a useful perspective for further research into social innovation in organisations. This approach extends the field of innovation management beyond business outcome agendas to acknowledge the innate importance of social agendas. By breaking down the inherent complexity of social innovation into four fundamental elements, we hope to provide a method of accommodating shifting perspectives, collective contributions and novel approaches to the resolution of social issues. In this way, the management of social innovation activities which seek to improve societal well-being through the novel resolution of challenges no longer relies on collateral opportunities but rather on deliberate management strategies that engage in open dialogue and critical reflection.

Conclusion

This initial attempt at developing a new framework for making sense of social innovation still requires further refinement and adjustment. However, it has drawn attention to existing bodies of literature and how these relate to our understanding of social innovation. At the outset, we illustrated how commercial products are often developed to ensure profitability and how this strategy may be achieved by limiting the operational lifespan of component parts. Service, maintenance and component replacement are often integral to innovative product developments. Although improved technical specification (speed, processing capacity and so forth) may form part of these business innovations they differ from purely technical innovations in an advanced science and engineering sense. In turn, social innovations may not seek the most advanced technical solution, but rather identify a pathway that best serves the interests of particular groups or communities. Thus, whilst business innovations may aim to secure profits and maintain or grow market share, social innovations are directed more towards social beneficence and societal well-being. In this paper we have sought to develop a new framework for making sense of social innovation and in so doing, we illustrate that whilst social processes are integral to all forms of innovation (technical, social and business) the aims and intentions behind these innovations can vary significantly.

Our main point of departure has been the argument that all forms of innovation involve social processes and that social innovation involves collaborative understanding through dialogue, and reflection by the people that it impacts upon, as well as flexibility and social consideration in decision-making for the successful exploitation of new ideas that improve societal well-being. Although science and technology can provide the materiality of change, there is always an ongoing socio-technical dynamic that is contextually shaped. In our view, too much of the conceptual debate is caught up with promoting a certain divide between the technical and social, with a focus on dualism rather than duality. The argument resolves around different conceptualisations and definitions rather than on substantive issues around how to promote, support and manage processes of social innovation. We seek to sidestep this diversion in reconsidering the concept of social innovation – an innovation that brings about social benefits *in*

conjunction with achieving particular technological, organisational or scientific advances – and the conditions that promote social innovation in organisations, the community or society. We suggest that a more critically reflective approach could contribute to opening up our minds to interpretive possibilities in the generation of new ideas and their application to innovations that meet social goals. Socratic dialogue provides the opportunity for broader conversations that enable individuals and groups to move beyond 'traditional thinking'. These techniques could also be used in conventional areas to investigate the potential to service social goals in ventures that are commercially viable. Whilst we recognise that the concept of social innovation will evolve (like all new ideas) and new interpretations will present different ways of understanding, we are optimistic that there is enough substance here for critical reflection and constructive debate on the concept of social innovation.

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CHAPTER 11

The Importance of Play in organisations

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Keywords
serious games, theories of play, computer play, workplace learning, network-centric organisations

Abstract
The role of play as a 'social innovation' is attracting emerging research attention since it can affect the emotional climate and complex collaborative performance of the modern workplace. The psychology of play recognises the benefits of incorporating play and 'playing games' at work. The increasing use of computer games throughout our society motivates the use of games and game technology for serious purposes including education, training and research. While managers are often reluctant to publicly state that play is good for work, they are willing to use the term 'Serious Games'. These are games that engage users in their pursuit, and contribute to the achievement of a defined purpose other than pure entertainment. This paper presents a study into the use of online team-based gaming to explore the cooperative and social aspects of team behaviour in a department of an organisation that wished to increase its human network-centric capability. A session of an online version of the traditional board game *Go* was conducted and a range of data was collected, leading to a qualitative analysis of the game and its impact on the players. The results indicate that team gaming sessions can enhance people's awareness and mastery of the collective processes underlying teamwork and cooperation in the workplace. This contributes to our understanding of the use of play and gaming in the workplace as a social innovation.

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Introduction

Although usually associated with the young, play is an engaging, fun and safe means to explore and experiment with the unknown for people of all ages (Mainemelis & Ronson 2006; Leigh & Kinder 1999). The psychology of play recognises the benefits of using play and games at work (Leigh & Kinder 1999; Statler, Johan & Bartvictor 2009; Harris & Daley 2008). However, there appear to be under-appreciated advantages in using play and games for staff development in

work organisations. Researchers and managers are reluctant to use terms such as 'play' in the work context because traditionally it is seen as an activity which is opposite to work. Nevertheless, there is a growing interest in what is called 'serious games' to improve morale, cognitive and social learning, and cooperative behaviours in organisations.

Emerging research attention is being paid to 'serious games' and to the role of play in improving the emotional climate and collaborative performance of the network-centric workplace (Crawford et al. 2008). The increasing use of computer games throughout our society motivates the use of games and game technology for more serious purposes including education and training. The term 'serious games' has been used to describe games that contribute to the achievement of a defined purpose as opposed to games that provide pure entertainment only (whether the user is consciously aware of it or not).

The authors of this paper and other colleagues have investigated the use of gaming to study the human aspects of networked teams and to develop a means of increasing social network-centric capability in the context of the Australia military (see Hasan & Warne 2008). An online, team version of the traditional board game *Go*, named *Go*Team*, was built for this research and protocols for play sessions have been developed. Traditionally in *Go*, two opponents take turns to place black and white stones on a grid, aiming to capture territory as well as to surround and capture the stones of the opponent. Like *Go*, *Go*Team* calls upon and enhances strategic problem-solving skills of individual competitors. Additionally, *Go*Team* also invokes social coordination skills, since as teams of players collaborate to win the game in the exploratory and non-threatening environment of 'play'; they must learn to cooperate in online collective decision-making under variable and uncertain conditions. The question we now ask is: how can this *Go*Team* environment be incorporated into training sessions for workers enabling pleasant but serious learning toward a more cooperative network-centric culture?

This paper reports on a study of the use of *Go*Team* for building team cooperation in an organisational setting. The objective of this qualitative study was to explore the ways that *Go*Team* sessions, through the mechanism of play, could enhance people's awareness and mastery of the collective processes underlying teamwork and cooperation in the context of the modern workplace.

Literature Review

This literature review adopts a cross-disciplinary approach that spans the disciplines of psychology, education, organisational behaviour and information systems. It aims to synthesise three concepts, namely: the power of developmental play in socio-emotional development; the benefits of computer-supported games for learning and work; and the potential of the use of play for development and learning in network-centric work environments.

Developmental Play and Socialisation

Play is widely accepted as a powerful medium for the development of imagination and socialisation over the entire life span **(**Csikszentmihalyi 1990; Rieber 1996; Gøncu & Perone 2005**).** However, play is most notably associated with children with the result that so much of our understanding of play comes from studies of the young. Play is not only an enjoyable activity of children but it contributes significantly to children's development (Vygotsky 1967; Sutton-Smith

1997). Theories of play have identified many ways in which play may advance children's cognitive, social and emotional development (Piaget 1952; Vygotsky 1978; Sutton-Smith 1997). In play, children acquire the foundations of self-reflection and abstract thinking, develop complex communication and meta-communication skills, learn to manage their emotions and explore the roles and rules of functioning in adult society (summarised in Verenikina, Harris & Lysaght 2004).

Developmental play allows for the growth of children's awareness of the world, and the world of social relationships in particular (Vygotsky 1978). By playing out various social situations, children form and expand their mental representations and abstract images of the ways that the world operates. In play, children are often seen to take on the roles of others in their real lives – such as mother, father, baby, teacher and friend. By playing out such characters they exercise, and reflect upon, different manners, ways of behaviour and styles of talking, thus developing self-reflection in communication, or meta-communication, and the awareness of rules and strategies in social relationships (Bateson 1976). Additionally, play is an important tool for children's emotional development (Vygotsky 1978). Psychoanalytic perspectives explain the value of play in allowing children to express negative emotions in a safe environment (Erikson 1963, in Verenikina et al. 2004).

Although less extensive than research into the impact of play for children's development, adult learners' play and its effect on their socio-emotional world have also been explored (Gøncu & Perone 2005; Harris & Daley 2008; Holzman 2009). It has been demonstrated that carefully orchestrated play in organisations contributes to "building adult learning communities" and enhances "adult learners' collective experiences and understandings" (Harris & Daley 2008, p. 52).

Play and Computer Games

The emergence of new forms of digital media has stimulated a fast growth of a wide variety of computer and video games which are seen by educational researchers as a new form of play. Salonius-Pasternak and Gelfond (2005, p. 6) describe computer play as "the first qualitatively different form of play that has been introduced in at least several hundred years." They suggest that it deserves a thorough exploration of its affordances in children's development. Numerous studies have been conducted to demonstrate the value of computer games in children's development (summarised in Verenikina et al. 2008). Interestingly, research in computer play has expanded well beyond the development of young children with an increased number of studies now examining adult learners (Wilson et al. 2009). In view of the rapid development of new technological media in educational and work organisations, researchers suggest that we reconsider the role of 'serious play' across all ages of players and "revisit the almost alarmingly simple, yet powerful construct of play" (Reiber 1996, p. 43).

Play in Organisations

The increased complexity of modern organisations demands an advanced ability to work in numerous teams where people and groups have to communicate, cooperate and share information to achieve organisational goals. In a technologically-enhanced organisation, more often than not, daily routine communication of teams is conducted in a computer-mediated environment, both online and off-line. This requires all team members to be able to communicate

in an efficient and productive manner. Current literature emphasises a "science of human relationships" (Goleman 2006) which implies adequate training for the staff in an organisation. The use of computer play has a strong potential to enhance the social relationships and emotional climate in organisations.

While the benefits of fun and play at work have been studied for a number of years (Gropper & Kleiner 1992), the growing complexity of modern organisations has stimulated an increased interest in play that decreases stress and stimulates positive change (Dreyer 2007). Recent research sees play as an inextricable part of the management of strategic innovation in organisations (Dodgson, Gann & Salter 2005). Considering 'serious play' in organisations suggests that play in the workplace can have significant benefits regarding strategic innovation, the management of uncertainty and continuous learning (Statler, Johan & Bartvictor 2009). Mainemelis and Ronson (2006) have specified the role that play has as both a form of engagement and as a form of diversion from work – both of which promote creativity in organisations. A distinction between games and simulations has been discussed – while simulations aim to accurately represent a task or a particular environment, games are "an artificially constructed, competitive activity with a specific goal, a set of rules and constraints" (Hays 2005, p. 15, cited in Wilson et al. 2009, p. 219). Summarising a number of studies, Wilson et al. conclude that "the use of games for learning leads to improved general learning, increased motivation, and improved performance" (2009, p. 219), however, "[m]any areas of research remain unexplored" (Wilson et al. 2009, p.220).

Lessons that can be learnt through play concerning teamwork and cooperation are particularly valuable as organisations become less hierarchical and more networked in their configuration (Huang, Ceroni & Nof 2000; Sambamurthy et al. 2003). The connotation of network-centrism continues to expand as ICT networks and applications transform the ways in which people gather, share, and process information and knowledge and, consequently, transform the ways in which they make decisions to act (Pascoe & Ali 2006; Warne, Hasan, & Hart 2006).

The network-centric paradigm allows organisations to change their culture from one determined solely by a command and control, rule-based hierarchy to one which supports more dispersed decision-making through the sharing of information and knowledge (Friel 2002; Crawford et al. 2008). Within the network-centric paradigm innovative working is encouraged via self-directed teams. This requires the human attributes of diversity, cooperation, loyalty, trust, sharing information and knowledge, collective decision-making and action, common goals and the support of social technologies (Daft & Lewin 1993; Warne et al. 2004). Internet-based social networking has become widespread in society, particularly amongst the young, and the social technologies that support networking are gradually finding a place in work organisations. In posing the question for this research, we are suggesting that preparing workers for this new less formal and democratic workplace is a social innovation challenge that can be met through play.

As mentioned in the Introduction, the study described here uses a purpose-built online team game, *Go*Team* (Hart et al. 2006). It is based on the board game *Go*, which has been instrumental in improving strategic capability in players for centuries. The *Go*Team* game provides a variable, challenging environment that requires players to exchange information and act cooperatively to perform well on a competitive task. The *Go*Team* software facilitated data

collection on many team and individual factors such as shared situational awareness (Hasan et al 2007a), cooperative team behaviour (Hasan et al 2007b), network-centric organisation (Warne & Hasan 2007) and diversity in teams (Crawford & Hasan 2009).

As games were played in the previous research with *Go*Team*, the significance of the play element of the game emerged in the way that players became engaged in the team activity and enjoyed the experience. Participants could freely explore many aspects of a realistic, general problem-solving environment and could make mistakes without being criticised or punished. While the different aspects of *Go*Team* have been previously studied in the context of play for entertainment this was the first time that *Go*Team* was formally used for workplace training.

Methodology

Aim and Research Questions

This study aimed to explore the potential of the *Go*Team* game to enhance the cooperative aspects of team behaviour in a department of a modern organisation for workplace training. Two research questions guided the study: (i) what lessons can be learnt from the gaming practice concerning teamwork and cooperation in an organisation? and (ii) what are the ways that the *Go*Team* game session can affect the social awareness of its workplace participants?

Overview of the Method

The research describes a one hour session of playing the *Go*Team* game by participants in a team-building session conducted in the workplace with administrative staff at a university. All the stages of the play were documented and the following data were collected: the protocol of the play; communication between participants during the play; the pre-brief and debrief discussions (a detailed description of the procedures and data collection is provided below). During the session two researchers were present: one conducted the session and the other acted as a non-participant observer, with no interaction with the participants (Creswell 2003). The data were qualitatively analysed to answer the research questions.

*The Go*Team Game*

As described in the Introduction, the *Go*Team* software application (see Figure 1) is a purpose-built online, team version of the ancient Chinese board game *Go*, which has been popular as a strategy game for centuries and so has stood the test of time as to its popularity and enduring challenge to players.

Figure 1. The boards of two players on the White team showing different sets of stones visible to each player and positions of non-visible stones (marked with the small letters) from information sent by other team members.

The *Go*Team* game's suitability for this research lies in its resemblance to the computer-mediated nature of joint activities within a modern university organisation which are characterised by a degree of uncertainty and a necessity of constant information sharing to achieve desirable outcomes. Additionally, the basic rules of the game are quite simple to learn.

The *Go*Team* game includes two teams (one playing black stones and one playing white stones). Each team has several players, each playing at a computer either individually or in pairs. The aim of the game is to place black and white stones on a shared grid (which each player can see only partially on their screens) in order to occupy territory as well as to surround and capture the stones of the opponent. Team members are not able to see each other's screens, since these give different views of the game, imposing the need to communicate (which can be done via different media). Players may use markers to improve their situational awareness in the game. Team members must communicate their moves and observed changes to their view of the board through online CHAT. The protocol of the sequence of the play is captured by the program. The software operates over a network in client-server mode. The facilitator (researcher) has a wide range of options to control the game settings from the server computer and each participant's play on a client computer. To perform well in *Go*Team* the players need to cooperate and coordinate their efforts, as well as share information for timely and appropriate decision-making. On the other hand, they also need to engage in competition, which provides challenge and motivation.

Participants and Location

The team-leader of a University administrative unit, who wished to improve inter-department collaboration among her staff, expressed an interest in trialling the 'serious game'. She thus acted as a real client and the *Go*Team* session was planned with her to choose teams from amongst her staff that included ten participants (five on each team) from different departments. The chosen participants included 8 females and 2 males, all of approximately 30-50 years of age. The session was located in a suitable room within the university. At her request, a report was produced that included profiles of the performance and debriefing comments for each player. These have been produced and were shown to her at a review meeting. Her response gave a valuable indication of *Go*Team* as a mechanism for both training and profiling participants.

Procedures and Data Collection Methods

The participants were informed that *Go*Team* would allow them to explore, in a playful way, how they function in the team environment and, afterwards, to reflect on the techniques that are more successful and the barriers that inhibit them from operating effectively as a team. Each player had his or her own computer on the network. Since in *Go*Team* players can only see the stones they play themselves and those of the opposition team near these (see Figure 1), the players had to communicate their screen view to other team members who could use markers to record the position of the stones that they could not see. Communication though computer CHAT was thus vital to all players in order to have a correct view of the state of play.

The sequential procedure for the session and corresponding data collection methods included:

- Pre-brief open discussion: data were collected on experiences of participants as members of teams and attitudes to working in teams (observations and notes taken).
- An Introduction to *Go*Team* play; and a short trial game.
- A ten minute face-to-face team meeting where players could get to know each other, and discuss strategies and tactics.
- Play *Go*Team* for 1 hour collecting data on individual and team plays, and their communication. The following numerical data were recorded by the system for each participant: the number of stones played; the number of messages sent; and the number of correct and incorrect markers used. These data provided an overview of different levels of participation and understanding by players at different stages of the game. Observational notes were taken with particular attention to the dynamics of participants' behaviour and episodes of oral communication.
- Debrief focus group: descriptive data were collected from a reflection on the challenges faced, enjoyment, sharing information, team cooperation and lessons learnt. Software was used which kept a record of the reflections expressed by the players in response to the questions entered in the system prior to the session. The questions for debrief were as follows: How much did you enjoy playing *Go*Team*? How competitive did you feel while playing? How difficult was it to communicate while playing? How well did your team go? How well did your team cooperate? Was anyone the leader? Did you decide that or did it just happen? What did playing *Go*Team* tell you about working in teams?

The data were also collected from a follow up meeting with the client. This was particularly relevant to the use of *Go*Team* as a corporate team training tool.

Results

The data that were collected from the recording of the play process, the communication records, the pre-brief and debrief of the session, and the observations and follow up meeting with the client were analysed (as described below) in relation to the research questions. The presentation of the results includes the element of play as a core construct.

The Level of Engagement in Play

The dynamics of the actual play of the game, which demonstrated both team and individual performance, is presented in Table 1, which shows the number of stones played by each player, the number of CHAT messages sent, and the number of correctly marked stones as an indication of their awareness of the position of the stones on the game board.

Table 1. Summary of Team Play in the *Go*Team* Session

Number of activities recorded	Black 1	Black 2	Black 3	Black 4	Black 5	All Black	White 1	White 2	White 3	White 4	White 5	All White
Plays	14	12	3	14	10	53	8	33	12	8	4	65
Messages	74	54	54	55	98	335	32	81	33	24	19	189
Correct Markers	85	41	67	20	74	287	55	95	75	77	84	386

The overall amount of the stones played and the messages sent by the participants (Table 1) indicated a high level of involvement of all the participants in the game process, which is consistent with the observational notes. During the session all the participants were actively involved either in playing or writing messages, looking at the screen, or talking through what was happening on the screen. They were exchanging text messages trying to figure out the turns or to simply encourage each other. Some participants demonstrated a higher level of participation in play and communication than others (reflected in the number of stones and messages in Table 1). For example, Player "White 2" during the hour of play sent 81 messages and played 33 stones! Other participants demonstrated lower numbers, for example, player "White 5" played only 4 stones and sent 19 messages. The domination of one particular player was noticed by some participants in the debrief. Further analysis of individual cases could have been conducted, however, it was not within the aim of this paper.

The Client's Perspective

The client wanted a summary of the behaviour and learning for each of the participants and so the data from Table 1 were broken down for each player, and their comments from the debrief pulled out into individual reports. For example: White 1, Stones Played = 8; Messages Sent = 32; Correct Markers = 55, followed by her responses to questions in the debrief (not shown here). As the client knew most of the players well she commented on the aspects of their personalities that came out in these reports. For example, it surprised her how subdued the 2 male players were but not that White 2 took charge of her team. Her main observation was how much she learnt from this activity which only lasted for three hours.

The tables and graphs of the overall play were also discussed with the client. The client was interested to explore the patterns of play over the game time. For example, the white team played more stones than the black team but sent far less and briefer messages ("more action, less talk"). Each team thus developed its own style of communication and play: the white team was more matter of fact with White 2 as the leader while the black team was much more expressive and volatile. Investigating the distribution of these data over the period of the game showed a variety of individual approaches. Showing a graph of these to the client made her comment that she could see elements of different personalities in the patterns of play. Some were consistent, others sporadic, some quiet, some lost interest etc.

Communication, Meta-communication and Play

The analysis of recorded communication allowed the identification of four major types of task-related messages: 1) informative; 2) strategic; 3) commentary; and 4) social. The first type included the exchange of information on the position and movement of the stones (e.g. 'black

stone E12', 'what is on a16?'). Both the teams produced an approximately equal amount of such messages. 'Strategic' messages included exchanges on the strategies of moving the stones, distribution of responsibilities and taking turns (e.g. 'next move needs to be E12... quick!','S. and R. – try and surround G9'). One team (Black) produced significantly more strategic messages than the other team. The 'Commentary' messages included comments on, and verbalisations of, actions and emotions (e.g. 'I'm a little confused', 'woops sorry, getting over excited' etc.). The fourth type of message, 'Social', included a variety of messages which did not contain any specific information but which had social purposes such as supporting, encouraging (e.g. 'Well done', 'Go R') or enhancing communication (e.g. 'Is everyone getting my messages?').

Some social comments (mostly in the team with black stones), indicated that the participants actually engaged in a make-believe play! They pretended the game was a 'war' and that the opposite team was the 'enemy' (e.g. 'now we're at WAR!!', 'Battle stations', 'Always put enemy before we talk about white dots', 'what enemy are we going to attack?'). Such engagement in make-believe allowed for a number of 'meta-communication' episodes (Bateson 1976) which indicated that the participants reflected on the styles of their communication (e.g. 'attacking seems easier than defending', 'are we still on the defence?').

Overall, the need to work together and share information stimulated an intensive task-related communication thus making communication a focus of attention and further reflection. In the debrief the participants commented extensively on the characteristics of such communication. One participant wrote:

> *Well, according to some team members we had a 'Hitler' like leader. I personally think it was a little more structured like a communist community ... we had players that were 'naturally' more aggressive and assertive I think...*

All participants in the debrief commented on a variety of strategies that they used. Some felt that overall their strategic communication was well-organised and productive. This was mostly true for the team which had more strategic rather than simply informative messages (Black). On the contrary, the members of the other team noticed that it was hard to communicate, as often the information that was sent was unclear and it was hard to keep track of the turns. All the participants commented that not everyone had enough opportunity to move stones. This led us to assume that the difficulty of collaborating effectively online through CHAT under time pressure was partly due to the fact that there were five people per team. In previous research the largest teams used were teams of four which proved easier to coordinate for the members of the teams. Nevertheless, everyone commented that the play part of the game was fun.

Interestingly, it took some time for the participants to take the session as play. At the beginning of the session (pre-brief and pre-game team meetings) participants were cautious and approached the session as part of their job and it was taken by them much more seriously than by the participants of some other research sessions, which were previously conducted outside of a work context. They asked for a work-related purpose to be explained to them at the outset and they appeared to be hesitant to engage in play where they could explore options and take risks. They wanted to know how they would be assessed in order to perform well at a specific task.

The gap that exists between the typical 'ordered' workplace culture and that of the network-centric paradigm was evident in the team meetings before the game where some players made comments such as "we needed to discuss the team strategy prior to playing and assign team roles", reflecting a traditional work culture. The participants did, however, admit that there was a need to improve cooperative behaviour in their workplace and they were enthusiastic about the potential of games such as *Go*Team* for this purpose.

The recorded data from debrief discussions provided us with a set of insights into the session. Some of the most significant observations, patterns of behaviour and expressed views of the participants were as follows.

- People enjoyed the game itself, which was evident through much of the content of the CHATs and the light-hearted exchange between players on both teams during the debrief session. Obviously, some 'social capital' was generated among the group as a whole and between staff from different departments who did not know each other.
- When reflecting in the debrief on what happened during the game participants made observations on their own behaviour and that of others, saying that they learnt something about themselves as much as about their team-mates and the opposition. One player remarked that it was "interesting to see how everyone played". Another noted the challenges of teamwork saying that is was "hard to keep up with all the info being sent and given".
- Numerous comments indicated that the session allowed for reflection on the teamwork, e.g. "winning is fun, but winning as a team is MORE FUN", "we didn't really have a leader but a couple of members were definitely more dominant and we won anyway", "it was nice to be able to have a laugh with people away from the normal work environment".
- Neither the players nor the client (the team-leader of the administration staff) felt that spending a couple of hours having fun at work was a waste of time when it ended in harmony and the strengthening of interpersonal relationships.

Discussion and Conclusion

In this research we studied how the online gaming environment provided by *Go*Team* could be incorporated into training sessions for enabling staff learning towards a more cooperative culture in the workplace. Both the participants and the client confirmed that the use of the online *Go*Team* game in the session as described in this paper produced its desired outcome, namely an improvement in inter-department collaboration among the staff involved. At the client's request, teams were deliberately formed to mix staff from different departments and this resulted in positive social interactions across departmental boundaries that have carried over into the workplace.

Our first research question asked: what lessons can be learnt from the gaming practice? In answering this question the results of the *Go*Team* session with university administrative staff provided a number of insights. Meeting with the client before the game enabled us to understand her objective. The flexibility in setting up the game made it easy to align the *Go*Team* session with this objective. In this case, mixing up the players on each team readily achieved the desired outcome to improve inter-department collaboration. We observed, however, that many other lessons were learnt both by the players and also by us as the researchers. Playing the game was challenging but enjoyable, particularly the fun of cooperating with others. The environment was

non-threatening as it was not seen as a work task but there was a sense of joint accomplishment, for example when an opposition stone was captured.

In summary, this study illustrates the value of leveraging concepts of play as an innovative way to prepare workers for complex activities in self-directed cooperative teams as required in the modern workplace.

In particular, computer games are increasingly used for entertainment throughout our society with people playing on the bus, at home and at work. Computer games thus affect more and more people and areas in today's society. This trend motivates the use of games and game technology as a workplace innovation for more serious purposes, e.g. education, training, profiling or organisational change management.

Organisational functions such as knowledge management (KM) and human resource management (HRM) have much to gain from play as they deal more directly with issues that arise out of human activity and collaborative work practices. Play provides opportunities for activities that are valued in HRM,k especially change management, collaborative work practices, education and training. Play can be used to explore the multiple forces that motivate employee behaviour and also to act as an innovative change agent that leverages the current social climate. Play provides a mechanism where change can be achieved at a lower risk to the individual and where the driving forces are reframed in the context of the play. These drivers may be seen as externally shaped by circumstances outside the agent's control, such as the state of society or the seasons, or they can be internally motivated from a conscious desire to make specific changes.

The outcomes of this project are both practical and theoretical. The theoretical implications of the project are that it establishes ways that 'serious play' can be used to enhance social innovation in organisations and increase our understanding of the benefits in establishing a new approach to organisational learning based on play. The *Go*Team* game created a situation where communication became the centre of attention which allowed the participants to reflect on the strategies and characteristics of such communication in a non-threatening and playful way.

In practical terms, the cultural shift needed for a traditional organisation to be more network-centric is rarely achieved easily, and gaming sessions, such as the one with *Go*Team*, may have a role to play. Even if it is recognised that an organisation and its people need to change, managers are often at a loss as to what to do. The potential of *Go*Team* as a workplace, team-building mechanism, is demonstrated in the project reported here and it would be relatively easy and inexpensive to implement.

The way each member of an organisation behaves in *Go*Team* sessions may also provide a means of classifying how prepared they are to operate in an uncertain network-centric environment where decision-making is decentralised in self-directed teams and critical actions must be undertaken with partial information under time pressures.

Further research

Activities based on games have the potential for learning capabilities such as cooperative behaviour which are otherwise difficult to develop in the workplace. Each *Go*Team* session provides a rich setting in which such activities can be conducted and studied through observation and analysis. It thus lends itself to future research by collecting data from new instances of playing the game in different settings and under different circumstances. Future research will also involve greater quantitative analysis of the data that we have already collected, enriching the time series data with coding of the messages sent during the game. This will enable us to analyse individual and team performance across the dimensions of communication, behaviour and performance. The research lessons learnt from this innovative use of the game could be used to build a multidisciplinary theoretical framework that can be tested with further *Go*Team* sessions.

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CHAPTER 12

Transforming the relationship between citizens and local councils using Web 2.0 technologies

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Keywords
Local government organisations (LGOs), service portfolios, systems development practices, systems integration, government to citizen (G2C), Web 2.0

Abstract
Australian local government organisations (LGOs) are unique in terms of the variety and diversity of services that they provide to their communities. These include traditional functions like maintaining local roads, managing property information, regulating real estate development, and collecting and disposing of waste. LGO service portfolios have expanded as a result of federal and state governments devolving their traditional responsibilities to local governments. LGOs have also raised community expectations by delivering a vast array of community and commercial services in addition to their traditional services. For example, the commercial services operated by Wollongong City Council (2002) include facilities such as tourist parks, leisure facilities, tourist information centres, and cultural and performing arts centres; and they also deliver community services such as community transport, coordinating volunteering, operating libraries and providing information to the public in the form of community directories.

Making these services available has increased the number of independent information systems used in localised parts of the organisation to manage these functions. How councils develop, manage and implement these independent systems, coupled with budgetary and time constraints and community expectations, has a significant impact on future systems development requirements. This paper examines the changing demands and expectations that the implementation and use of Web 2.0 technologies has on both the information systems development and integration that many government service providers face today, as well as on the shifting nature of the relationships between government service providers and the citizens that use these services.

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Introduction

Local councils (also known as local government organisations or LGOs) are under pressure to take on additional responsibilities and to continuously implement and deliver more social services (Hawker 2003). As a consequence, these services have led to the implementation of

many customised and independent information systems which help staff to manage specific functions. These systems tend to be domain specific and are often provided by vendors who target particular niche markets. While vendors of larger systems have adapted versions of their products for use in local government, the choices are limited, and fully integrated single vendor solutions are not readily available. The combination and mix of systems is unique to each LGO, and the level of integration between the chosen systems also varies. This project addresses some of the information systems issues that local governments face today, especially when combined with the drive to engage online with citizens and to provide an increasing number of valuable interactive services (Web 2.0).

We believe that the development of new interactive online services should be carried out in a socially innovative manner that enables the users (staff and citizens), line managers, and other stakeholders of the system to both contribute value to the system and also participate in its ongoing development and direction-setting. This can be achieved by embracing participation and including research and feedback mechanisms in the development process. In order for LGOs to be able to develop and deploy new web-based services, the adoption of specific practices – a development methodology – that can assist in the creation of new Web 2.0 services for citizens needs to be introduced, tailored and refined within the specific organisational setting. Enhancing engagement and changing the nature of the relationship between citizens and their local council results in greater access to and inclusion of the web in the lives of citizens.

This paper initially explores LGOs and how Web 2.0 technologies are used to create new web-based services, and what organisations can gain by using this practice. We then consider some of the issues surrounding Web 2.0 services deployment with an emphasis on LGOs, and provide details of the progress made by Wollongong City Council (WCC). We show that the experiences gained in developing WCC's Web 2.0 services have helped to create new development approaches. Finally, we describe these experiences, present our interim conclusions and discuss the relationship between the changing nature of LGO service provision and citizens.

Local government organisations (LGOs)

LGOs are the tier of government closest to the community; providing local services which have traditionally been property-based, or performing a regulatory authority role (Dollery, Wallis & Allan 2006). Australian LGOs are unique in terms of the variety and diversity of services that they provide to their community (Gardiner 2005). The services offered include traditional functions such as maintaining local roads, managing property information and development and the management of waste disposal. The mix of services and the emphasis on the types of services provided varies with the size and resourcing (staffing and budget) of the LGO, and this is influenced by the absence of state and federal agencies in the area, the levels of infrastructure, and the amount of property development occurring in the region (Dollery, Wallis & Allan 2006).

The income of LGOs is sourced from land rates, fees and charges for service, grants from other levels of government (state and federal), joint ventures with private sector companies, and community-generated funding for community projects (Dollery, Wallis & Allan 2006). Many services are not directly chargeable to the service receiver and some of these are often capped or regulated by higher levels of government. There are increasing pressures to grow and develop new social/human services, and to develop new commercial operations coming from both the community and other levels of government. According to Hawker (2003),

LGOs are fighting a losing battle to reduce their costs and remain sustainable while trying to be all things to all people!

In order to meet budgetary constraints (Dollery, Wallis & Allan 2006; Hawker 2003), many LGOs have increased their emphasis on outsourcing the delivery of specific services such as the collection of waste, since private service providers can achieve economies of scale by servicing more than one local government area. Technology services are of a fluid nature and will most likely remain as an internal service. The Internet provides LGOs with a way of delivering digital services to citizens. Increasing computer and web literacy in the community enables citizens to interact with LGOs, and provides them with the opportunity to engage and contribute to the development and implementation of services that best support the broader community. Perhaps more profoundly, the Web 2.0 technologies that drive many social networking sites also provide citizens with the opportunity to help build these websites. Citizens can do this in several ways, including: interacting with existing digital services (collective intelligence); and assembling new services from existing digital services (so called mash-ups). We will briefly explore the first of these.

Service provision and Web 2.0

Previously we mentioned that Web 2.0 technologies can provide LGOs with new possibilities for service development (digital services). In this section we consider the orientation to service provision at WCC using Web 2.0. The development and use of Web 2.0 technologies is changing the World Wide Web from being a place where you read published information to a place where you can contribute content and actively influence the shape of websites. Web 2.0 is about two-way interactive communications, and it is characterised by a philosophy of functionality and services that distinguishes it from other approaches (O'Reilly 2005). Users of Web 2.0 systems are not limited by what they can find, but by how they can interact, combine, remix, upload, change and customise the content and services for themselves. These possibilities are aided by the use of Web 2.0 technologies (such as *feeds*) which allow content to be pushed from one website to another using automatic content syndication. Creating Web 2.0 services requires a more flexible and fluid development approach than traditional systems development. Web 2.0 services can be continuously improved when the developers and users engage and interact with each other online.

Web 2.0 is already having a levelling impact on barriers to entry in many fields. This makes it easy for non-trained professionals to contribute. For example, blogging enables many citizens to publish their views on particular issues, while YouTube and other services enable anyone with a video camera to broadcast their own video content. This impact also lowers the barriers for readers and viewers to comment publicly on the content that they consume. Leadbeater (2009) uses an analogy of boulders and pebbles to illustrate how the world is changing. His boulders are the media organisations of the 1980s and the pebbles are the ordinary people with their blog posts or comments on services like YouTube. He foresees a time when the boulders will be almost covered up by the rising tide of pebbles and this will affect all currently established players. He presents examples of what he refers to as "We-Think" where online communities have self-organised in order to collaborate and innovate. One example of this is the online magazine *FastCompany.com*, a community site in which member-created content is featured alongside the work of staff writers. Members create value by contributing stories, networking with each other and by collaborating and organising live online events (FastCompany 2009).

The two major characteristics that make Web 2.0 technologies of interest are the *network effects* and the resulting *collective intelligence*. Web 2.0 efforts are multiplied rather than added (O'Reilly 2005). A positive network effect refers to an increase in the uptake of a good or service as more people use or adopt it. O'Reilly (2005) argues that managing online network effects is a key to success for organisations wishing to use Web 2.0. Online networks can also experience a bandwagon effect as more and more members sign up to a service through the influence of others (O'Reilly 2005). Web 2.0 content is shaped using various voting, rating and moderation strategies, referred to as *collective intelligence* (O'Reilly 2005).

There has been a great deal of experience when it comes to applying Web 2.0 to commercial activity. How can we apply this to LGOs? How will the relationships between citizens and their local councils be transformed? LGOs have vast repositories of public information that they are required to provide to the public on request. The provision of this information to the public over the counter or telephone is quite costly, and therefore it is attractive for LGOs to provide as much of this information as possible via the web for the public to 'self serve' their specific informational needs. There are a range of factors that need to be considered when dealing with Web 2.0 based services, regardless of whether these are deployed by companies or LGOs. We organise the factors relevant to developing Web 2.0 services into the following groups (see Figure 1):

- *Converting potential users/citizens to actual users*: This includes attracting potential users, retaining these users, and providing the means for users to recommend these sites to others.

- *User/citizens utilising Web 2.0 services:* This includes the freedom of expression of users/citizens on websites, the type of user experience available and the types of modalities in which information is provided to users, the relevance of available services for specific user groups, the degree to which user participation is possible, the types of support provided to users, the mechanisms for eliciting and handling user requests, and whether user collaboration is available.

- *Deployment of Web 2.0 services:* Web 2.0 services can be directly provided from an LGO or corporation via its web presence, storefront or website deployment, but increasing web services can also be achieved from an external service provider – by either free or fee-based service arrangements. Using external services reduces development time, costs and deployment difficulties, and enables service providers to concentrate on integration issues which are usually less problematic for organisations.

- *Organisational and development issues:* This includes appropriate skill sets, development practices, and reasoning processes, which are applied or created for use in the development unit, as well as the appropriate tools to create requested or needed services. On the other hand, the organisation – whether it is an LGO or a corporation – must create appropriate strategies and policies for using and developing Web 2.0 Services. Of particular importance for organisations are strategies concerning licensing and retaining information, and the possible future monetary gain from these services (so called service monitisation). Of particular importance to developers is whether the deployed sites provide for user tagging, annotation, multimodality support, and site adaptability to user activity, as well as the provision of support for publicly available access to data via an *Applications Programmer Interface* (API) or more widely-used forms of content syndication, such as RSS feeds.

This research project explores how best to develop Web 2.0 systems from both social and technical perspectives. These Web 2.0 systems promise to provide emerging web applications which will lower barriers to communication between citizens and LGOs and therefore promote empowerment for citizens. In the following section we describe how WCC is utilising Web 2.0 technologies to engage in conversations with its communities, and how this in turn is changing how citizens are engaging with the government.

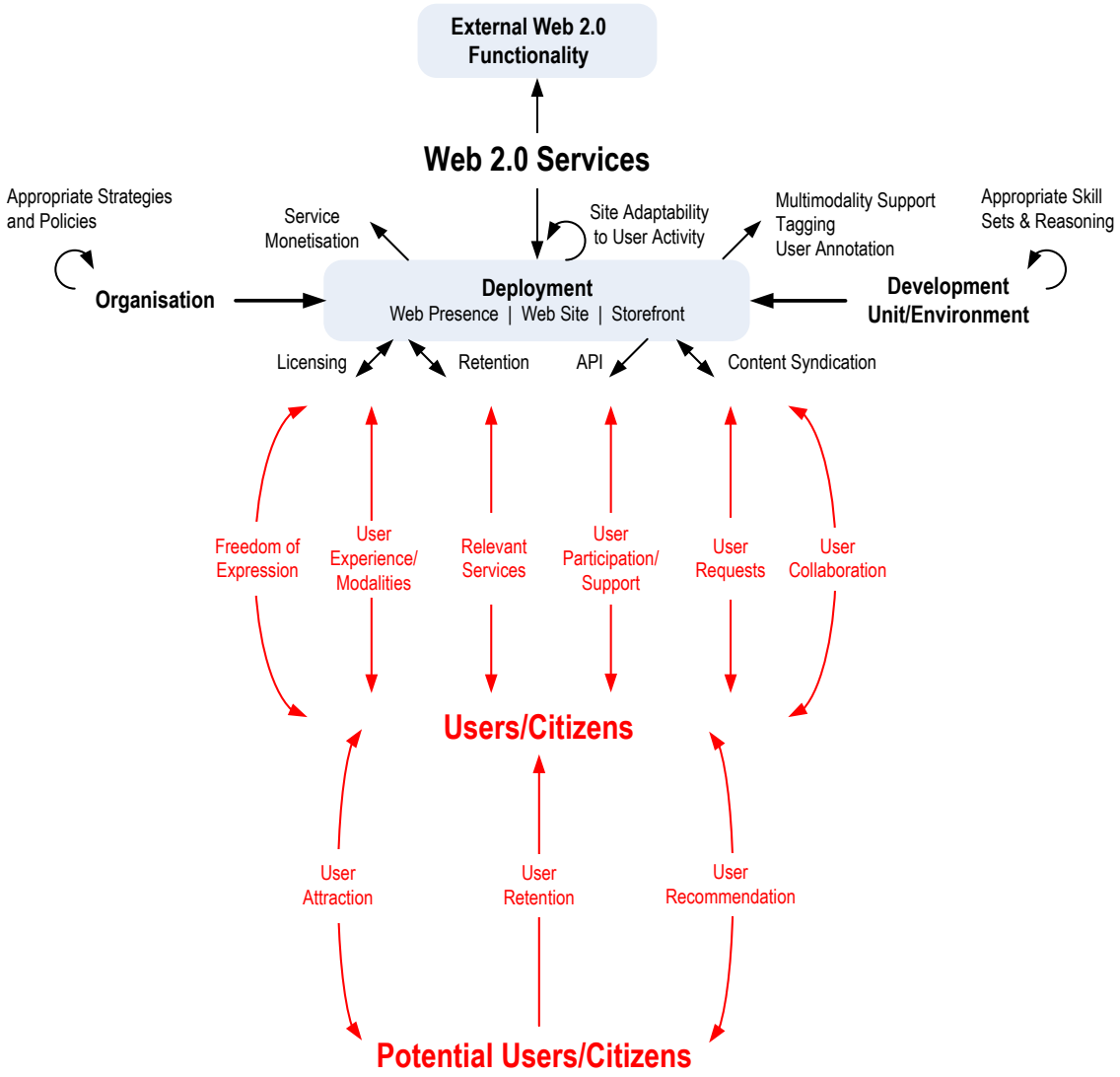

Figure 1: **Factors to consider in developing Web 2.0 sites**

Wollongong City Council and Web 2.0

Our study of digital service development is based on Wollongong City Council (WCC) – a large LGO by national standards. Not only has WCC had to deal with substantial growth along with other Australian LGOs (Dixon 1996) as described in section 2, but it has also recently endured the turmoil of having an elected council dismissed following an Independent Commission Against Corruption (ICAC) investigation into planning processes. This investigation found that systemic corruption existed within five levels of the organisation and

some property developers (Cripps 2008). The ICAC has recommended changes, as well as a push for a more sustainable financial footing, and this has driven internal efficiencies.

The changes at WCC create many additional demands and opportunities for web systems development, to help improve both the efficiency and effectiveness within the organisation. External pressures are also contributing to making the business environment become more like a private sector corporation than the traditional LGOs of the past. These external pressures place increased demands on outward-facing websites as a communication channel to external stakeholders, and as a result it is becoming imperative for these websites to be kept up-to-date and problem free. The ambiguity caused by this complex management environment is compounded by the increasingly emergent nature of the organisation.

Wollongong City Council is beginning to use Web 2.0 by establishing feeds to enable LGO information to be used by others. The Council provides a wide range of information services through different feeds (45 as at July 2009) in categories including: interactive content, advertising, online community engagement, online customer services, online information services, event updates, feedback mechanisms and online tendering. These categories are broadly described below:

- *Websites and affiliated organisations*: From a citizen's point of view, council services are not only to be found on the WCC website. WCC operates many commercial services including ventures such as tourist parks, leisure facilities, a tourist information centre, an art gallery and a performing arts centre. It is also active in the delivery of community services such as community transport, coordinating volunteering, operating libraries and providing information to the public in the form of community directories (Wollongong City Council 2002). Not only are citizens the beneficiaries of this information, but other organisations can also use these feeds to add value to their own sites. This can raise interesting issues about liability and currency of information, since at times these RSS feeds could be used by those who have not asked for permission to do so, or who might not necessarily have the same agenda as that of the council itself.

- *Interactive content and advertising*: These categories involve a page providing lists of WCC RSS feeds for interested parties to use and advertising for WCC in the form of online videos.

- *Online community engagement*: This category covers terms traditionally associated with consultation, communication, and public participation, and may involve one-way communication, information provision, and collaboration of various kinds. WCC provides a range of community engagement services which can be found at the 'haveyoursay' page. From 2006, the council spent a year developing a community engagement policy and framework in order to provide relevant community involvement and to establish relationships between the council and the community. No doubt such a policy assisted in identifying the approach taken for prioritising and selecting online community engagement functions to develop for the website. The available links include those to development applications on exhibition – in which development applications that are lodged at the council are listed and the procedural status and judgements about these applications are described.

- *Online customer services*: This category provides links to a range of more specific features which generally involve a workflow unlike the more general category of

"Feedback mechanisms" described later. Links include general service requests (such as notifying the council of an abandoned car, food safety concerns, or a noise issue), online name and address updates, rate payments (including online payments), tourist park booking enquiries, and lodging and tracking development applications, building certificates and applications to remove trees (tree management orders).

- *Online information services*: This category includes links to WCC's community profile which describes the characteristics, history, and demographics of the city including a community atlas showing the key socio-demographic characteristics of the city in map form such as population, ethnicity, education, households, income, labour force, housing, internet access, and socio-economic indexes (SEIFA). Links also provide weekly community updates, an events calendar, a community directory, a business directory, a mapping service, a library database search, local historical pictures, and lists of related web links.

- *Event updates*: This category provides information on the availability of council papers, a calendar of events, media releases, road maintenance work, emergency information and the availability of sportsgrounds. The sportsground service provides a list of open and closed sports grounds. The list is created from information provided by staff who are responsible for opening or closing the grounds. This page is particularly useful to parents of young children who play sport on weekends, especially in the wetter winter months. Since its inception a couple of years ago this page has been one of the top ten pages on the site. This page has been established as an internal intranet list updated by grounds staff and synchronised with a copy on the external website every five minutes. Recently an announcement list was also added enabling operational staff to communicate their intentions about when the list will be next updated.

- *Feedback mechanisms*: General website feedback and customer service feedback provide channels of communication from the citizens to WCC. In general there are very few explicit requests from users to provide or modify content, and this allows each request to be handled as a development priority. As a result there is a high degree of institutional responsiveness to requests from citizens at the present low levels of feedback.

- *Tendering*: WCC is involved in online engagement with its suppliers for tenders, quotations, and expressions of interest through the use of a third party portal called Tenderlink which is shared with other paying councils.

The eCommerce literature often classifies information and transactional flows based on the entities involved: Government, Business or Citizen/Customer. Almost all of the current Web 2.0 based services developed by WCC to date are targeted at information provision to citizens (G2C), for example: interactive content, advertising, online community engagement, online customer services, online information services, and event updates. Of particular importance to service development are feedback mechanisms and this is likely to be an area that the development team will want to streamline in the near future. Growth areas are likely to be G2B services of which only online certificates, development applications submission and tendering for supply have received attention so far. The key to timely information provision for WCC websites and affiliated organisations will be harnessing their own knowledge workers, signalling a shift from reactive and external-facing development to the creation of services that can harness the current workforce to create fresh content as a consequence of their activities, and to engage them in such participative service development.

New development practices: from social innovation to technical innovation

Although we believe that social innovation can be achieved via technical improvements and innovations we do not advocate technological determinism – for us the latter does not guarantee the former. In the context of developing new services this means creating new development practices that enable Web 2.0 services to be rapidly built while at the same time effectively utilising the human and technical resources both within and outside the organisation. According to Brooks (1995), the most time-consuming aspects of developing systems are not the technology and coding but rather the creativity required, especially during analysis, planning and testing. Rather than creating a methodology around project management practices (the usual way of doing this), Jacobson (2008) argues that it is important to use what you have, keep what is working and integrate new and simple practices and tools. The work of these authors confirms our own studies at WCC. Considerable experience has been gained in developing a large number of Web 2.0 services for WCC over the last four years. We can characterise some of the important features of a methodology for LGO web service development. These features include using action research, studying communication and collaboration during the development, deployment and use of Web 2.0 services, and adopting industry best practices in service development.

Action research: Our best practice approach emphasises the need to act but also to reflect. We therefore unusually have action research as the foundation of our development practices. Action research is about taking initial stock of where the current situation is, formulating an action plan based on what needs to be changed, implementing this plan, and then reflecting on the changed situation. This paper forms the basis of an initial reflection on the current situation, identifies opportunities and begins the planning process of action to take. By applying action research, this project focuses on the co-evolution of business processes and the systems that support them within the context of both the organisation and its changing environment. Action research is also used to build continuous improvement into development practices. Our approach concentrates on the evaluation of the evolutionary development of requirements and systems development, sharing some features with approaches described by Hasan (2003) and Rose (2000). The community of users and content editors of the LGO's web system comprises the development team, systems administrators, general staff users of the web systems, as well as the general public when providing feedback. It is particularly important to include staff in the website development process and content provision process. These stakeholders will be treated as co-researchers as per the participative action research tradition (Coghlan & Brannick 2001).

Communication and collaboration: Our development practices emphasise communication and collaboration between the development team and the customers and clients. Client involvement will be encouraged in the form of collating requirements and monitoring incremental development. There will be opportunities to gather data through Joint Application Development workshops and formal and informal meetings. Tools will be used to support communication and collaboration using a series of electronic forms and collaboration spaces using the existing WCC development environment (Microsoft SharePoint). These forms include development requests and requests to change services. At the completion of each request there will be a need to reflect on how the implementation proceeded as well as how well the business problem was resolved. Comments from clients and end users will be encouraged especially where aspects of the business problem remain.

These comments will then be used in further development iterations and to complete the action research cycle. Blogging on the intranet by the development team will be used to communicate development progress and new functionality that is introduced. Staff comments and feedback will be encouraged and an online discussion board will used.

Service development approach: Users add value to Web 2.0 systems. The service development approach being created at WCC leverages customer self-service and uses algorithmic data management to understand how users are using existing services. The service automatically improves the more that people use it. When services are developed, inclusive defaults are set for aggregating user data and building value as a side-effect of ordinary use of the application. In our experience the most successful web services are those that have been the easiest to move in new directions unimagined by their creators. The development of these services as well as the ongoing maintenance and adaptation of existing services to new situations involves many small changes being made over time – a strategy that has been variously referred to as "evolutionary prototyping" or "agile development". Another characteristic of this approach is that it is a bottom-up development of services and processes. Small problems are attacked before they can grow into larger ones. This places special demands on how services are built and so lightweight programming models are used that allow for loosely-coupled systems and components including lightweight user interfaces, development models and business models. Lightweight programming models enable flexible design to be more easily achieved. . In fact using Web 2.0 technologies like Ajax enables users to change the look and feel of the web services, while the underlying approach used to develop the services themselves is designed for "hackability" and "remixability". Another key aspect of service development for WCC is the purposeful use of in-house development of services blended with outsourced freely available services. This means that the emphasis is more about high-level configuration of systems and environments than coding.

Discussion and conclusions

In Australia, legislative reforms in the 1990s served to empower local governments with greater flexibility in the way that they operate and the range of services that they provide. At the same time community expectations have increased and higher tiers of government have simultaneously devolved various new functions to local authorities. As a result, Australian local authorities have changed their focus by default rather than by design (Dollery, Wallis & Allan 2006). At WCC efforts have been directed at creating systems development practices that can be used to create new services quickly and economically.

There are a range of development issues that have occurred in the creation of feeds for WCC. Developers no longer need to think about developing their own software and solutions, rather it is now more important to think in terms of services that are being provided and of taking advantage of the mass market of freely available services. WCC has used a range of external Web 2.0 functionality providers of 'software as a service', such as using Google Maps on the sportsground pages and using YouTube video hosting for WCC advertising. In the case of web-based mapping, this service provides a common user interface and many additional built-in features such as getting directions to locations. Other external Web 2.0 functionality providers include: Survey Monkey (for online survey hosting), Tenderlink (for online supply), Card Pay (for online rates and payments), and Google Groups (for inter-organisational collaboration). In general LGOs should be looking to take advantage of available services that provide free software services. Interestingly, the use of external Web 2.0 services within LGO's systems can reduce development difficulties, and simplify service provision by transforming development into systems integration tasks, while removing or

reducing maintenance and housekeeping. Along with the benefits of using these free external service providers come risks. There is a real risk for LGOs relying on the continued existence of free Web 2.0 functionality. There is also a lack of control on media hosted on these sites as there is in media hosted on social networking sites – customers of these externally provided services including LGOs have to agree to specific terms and conditions. There are legal issues concerning information republished by others including those who would utilise content provided in feeds. Who owns the content and does it matter? If the content is created by a third party, posting it to an external provider may not be possible or it may infringe the rights of content creators.

There is no doubt that as these services migrate to the web, expand in sophistication, and proliferate in number, the role of the citizen is changing – for better or worse – from a passive resident to an active, and engaged netizen (see Turban et al 2006, p.332). Our notion of what constitutes a service and how LGOs create them will also need to change. Perhaps some of the most interesting social dimensions of the application of Web 2.0 technologies to LGO service provision involve the changing nature of citizenship when it comes to local government, the change in how these kinds of services are developed, who actually develops them, and what 'development' now means. These questions were easy to address in the past but the collaboration that is now involved in proposing, developing, and using these Web 2.0-based services problematises the ownership, rights, responsibilities, and obligations associated with them. The development of these new services is also transforming the relationship between citizens and local councils – and this shift can be explored and documented through the technologies and methodologies that we use and privilege.

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SECTION IV

PROFESSIONALS

CHAPTER 13

Using market segmentation to gain insight into reasons for not foster caring

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Keywords
foster care, segmentation, marketing

Abstract
Australia is facing a significant shortage of foster carers, yet little is known about the main reasons which prevent people from becoming foster carers. This study contributes to filling this gap in knowledge. A survey of 897 respondents who have never been foster carers indicates that – at the aggregate level – the main reasons that people do not become carers are that: (i) they do not know anything about foster care; (ii) they are busy with their own children or with work or family/friends commitments; and (iii) they have not been asked by anyone to be a foster carer. However, if we use market segmentation to group individuals according to whether they would consider fostering in the future or not, then the results indicate that those who would not consider fostering are too busy with family/friend commitments, have no interest in children, and feel that taking a child was too big a commitment to make. These are all reasons that cannot easily be influenced or changed. In contrast, people who would consider fostering in the future are more likely to indicate that no one had ever asked them to foster. These findings highlight the fact that the market of potential foster carers is not one homogenous group, and that simply considering the barriers to involvement at the aggregate market level can mask the different views of particular segments within the market.

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Introduction and literature review

In 2009, 34,069 children lived in out-of-home care in Australia, with almost half of these placed with foster carers. Over the past 10 years the number of children in out-of-home care has increased by 117% (Australian Institute of Health and Welfare, 2010). At the same time, fewer people are willing to become foster parents. The combination of these two factors leads to the primary problem faced by the national foster care system today: Australia does not have enough foster parents for children in need.

The bulk of the research conducted into foster carer recruitment focusses on the reasons why individuals *do* become foster carers. Some attention has been paid to why people cease being foster carers, but very little focus has been directed towards why people do not become foster carers. If we can identify the barriers to becoming a foster carer, it may be possible to create advertising campaigns that seek to overcome these barriers and attract more people to foster care. The following section outlines existing research in these areas and where the gaps in the research exist.

Reasons for becoming a foster carer

Numerous empirical studies have identified factors that motivate carers to take on a foster child. McHugh et al. (2004) found that motivations for fostering were primarily related to benefits and outcomes for the children. For example, carers were involved because they wanted to make a positive difference in children's lives, or they or someone they knew were in foster care as a child and they wanted to help someone else in the same situation, or they were unable to have children of their own but wanted to care for a child.

In their study of older foster carers, Goughler and Trunzo (2005) found that being a foster carer allowed people to express their religious values, fulfil deeper needs for self-actualisation, and deal with empty nest syndrome. Carers stated that they genuinely enjoyed having the children around and that having them made their own home a happier place to be.

US researchers have found a similarly multi-faceted range of reasons explaining why people nominate to become foster carers, which included wanting to share their love with children, feeling a spiritual calling to become a foster carer, wanting to foster because they could not have biological children of their own, and wanting to foster care for financial reasons (Jarmon et al. 2000)

Reasons for discontinuing foster care

Research has identified reasons why people discontinue foster care (Jarmon et al. 2000; McHugh et al. 2004; Triseliotis, Borland & Hill 1998), including: burn out syndrome; a lack of support from foster agencies (e.g. in the form of case worker support and respite care); the negative impact of foster children on their own family; and behavioural issues of the foster child (McHugh et al. 2004). Both US and UK based studies have found similar reasons for discontinuing foster care, including: a lack of support from department counsellors; a lack of autonomy to make decisions regarding the child; and problems with cumbersome bureaucracy which made caring for the child very difficult and which exacerbated behavioural problems associated with the child (Jarmon et al. 2000; Triseliotis, Borland, & Hill 1998).

Reasons for not becoming a foster carer

An area which has received far less attention concerns the reasons why members of the general public *do not* become foster carers. This question is of particular importance if the aim is to attract new foster parents and new kinds of foster parents, who are currently unaware or uninformed about foster care but may be interested if communicated with in the right way.

Keogh and Svensson (1999) investigated this issue but focussed solely on those people who had already contacted a foster care agency to enquire about becoming carers but subsequently did not. Thus, as this sample involved individuals who had already expressed some willingness to engage in the foster care system the findings are limited in their ability to be generalised. Keogh and Svensson asked respondents about the reasons that they did not end up becoming foster carers and found that over half did not proceed because of their personal circumstances. Other reasons included failure by the agency to follow up on applicant enquiries, the lack of appropriate placements, or advice from the agency not to proceed with foster caring.

Therefore, in terms of information that can be used to direct recruitment efforts, the results of Keogh and Svensson (1999) are relatively vague. For example, the most common reason for not proceeding was the very broad category of "personal circumstances" which included multiple issues ranging from changes in marital status, financial situation, work arrangements, or issues to do with their own children. More detailed and quantifiable information is required, particularly if the results are to be practically useful for foster care managers.

Some researchers have asked why people do not become foster carers (Victorian Centre for Excellence in Child and Family Welfare, cited in Richardson, Bromfield, & Higgins 2005; South Australian Department of Family and Community Services 1997). Reasons for not fostering have included: a lack of confidence the potential foster carer has in the skills to be a good parent; a fear of having to deal with difficult children; the costs associated with having a foster child; the extent of the commitment required; work commitments; their perceived lack of fit with their current lifestyle; their perceived risk that foster caring would disrupt their own family situation; and fear that foster caring would be too expensive.

The problem of recruiting foster carers is further complicated by wider socio-economic forces. The non-profit sector as a whole has grown significantly in recent decades, resulting in increased competition for limited resources. Many organisations including foster care agencies are finding it harder to attract and retain volunteers, or in this case foster carers. In consequence, it is apparent that the reality facing many non-profit organisations is in fact a typical marketing problem. That is, how to: (1) identify the right customers (individuals likely to become foster carers); (2) design an attractive product (a foster care experience that is rewarding in some way); (3) attract the right customers (entice them to begin fostering); and (4) keep them loyal (have them continue fostering for as long as possible) (adapted from Randle & Dolnicar 2009).

While the above studies have provided some preliminary insight into the types of barriers which prevent people from becoming foster carers, the results are only considered at the aggregate level. In other words, the results are averaged for the population as a whole, potentially masking the fact that some barriers might be particularly relevant for different

segments of the market (i.e. population). Potentially important market segments include individuals who would consider fostering in the future versus those who would not.

The present study contributes to knowledge in the area of foster care by segmenting the foster care market and investigating whether particular factors prevent different groups from becoming foster carers. Specifically, we address two research questions: (1) what are the barriers that prevent people from becoming foster carers?; and (2) do these reasons differ according to whether the individual would consider becoming a carer in the future?

Methodology

Fieldwork administration

Fieldwork was conducted between October 2006 and March 2007 using a permission-based internet panel which was maintained to enable representative sampling. An invitation to participate in the study was sent to 1,415 members of the general population, and 951 individuals completed the survey. This represented a response rate of 67%. Of these 951 individuals, 897 indicated that they were not currently, nor had ever been, foster carers. The analysis for the present study is conducted on this sub-sample of 897 respondents. Therefore the sample was drawn from the general population and included those who indicated an interest in foster care as well as those who did not. This was important because our aim was to gain insight into the reasons people have not considered becoming a foster carer, and to improve our understanding of the issues preventing people from foster caring that may be addressable.

Questionnaire

Through a self-completion survey, respondents were asked to indicate whether they were currently, or had ever been, a foster carer. Those that indicated that they had no caring experience were asked to nominate (on a list of 15 reasons) why they had never been a foster carer. This list of reasons was derived from a review of the relevant literature and after discussions with local foster care agencies to gain their anecdotal feedback on why people do not become carers. The reasons presented to respondents are listed in Table 1 (within the Results and Discussion section). Respondents were free to choose as many reasons as were applicable to them. Respondents were also presented with an 'Other' category, and if they selected this category then they were asked to specify what their reason was in a free text field. Finally, respondents were also asked to indicate whether they would consider becoming a foster carer in the future, and to provide some socio-demographic information.

Data analysis

The 897 respondents who had never been foster carers were segmented based on whether they would consider becoming a foster carer in the future. Those respondents who indicated that they would consider fostering in the future were labelled the *"Potential Foster Carers"*, while those that indicated that they would not consider fostering in the future were labelled the *"No Foster Carers"* group.

Responses for each reason for not fostering were tallied on the basis of the division between the *Potential Foster Carers* and *No Foster Carers* groups, and chi-squared tests of independence were conducted on each reason category. Non-endorsement was assumed to indicate that respondents did not find the reason applicable in their case. Alpha, the criterion of significance, was adjusted so that a family-wise error rate of .05 was maintained. That is, in order to reduce the likelihood of a Type I error, the maximum rate of .05 was divided by

the number of tests performed in each set of analyses, and in each case this value became the *p*-value by which significance was determined.

Results and Discussion

This section is structured to follow the two key research questions posed by this study, namely: (1) what are the barriers which have stopped people from becoming foster carers?; and (2) do these reasons differ according to whether an individual would consider fostering in future or not?

Market-level barriers to fostering

Sample description

The total number of non-foster carers was 897, as 54 respondents indicated that they were either currently foster caring or had done so in the past. The mean age of the sample was 34.7 years (range 18.6-68.9 years), revealing a positively skewed sample. The breakdown of respondents by sex (500 females) indicated that as a whole the sample was significantly more female than the general population, $\chi^2(1) = 5.33$, $p = .021$. Eighty percent of the sample earned under $60,000 per annum, 46% were tertiary qualified, the majority were engaged in full-time employment, and slightly more than half were in relationships. Furthermore, 359 respondents (40%) had children.

Results

presents in rank order the reasons why respondents in the total sample had never been a foster carer. The most often endorsed reason was “I don’t know anything about foster care”, while commitments to other life responsibilities (one’s own children, work and family/friends) were also endorsed by one quarter of the sample and were ranked 2-4 respectively. The reason “No one has ever asked me to” was also identified by more than one-fifth (22%) of respondents, suggesting – together with the strong endorsement of “I don’t know anything about foster care” – that many individuals have not been communicated to or provided with information about foster care. The reasons “Taking in a child is too big a commitment to make” and “It would be too expensive for me to have a foster child” were the next most strongly supported reasons, reflecting concerns over the potential burden of foster care. These were followed by a number of perceived personal mismatch reasons (age/health issues, not the type of person to foster care, and no interest in children). Issues concerning interactions with foster children (behavioural problems, concern over the permanency of care if the arrangement was not working out, and the impact on one’s own children) were ranked 11-13 across the categories, indicating that while these were concerns for some respondents, they were not as generalised as the majority of the identified reasons. The reasons “Too young” and “Single”, ranked 14-15, imply other sources of perceived personal mismatch, although the age distribution of the sample suggests that for a number of individuals foster care had not been considered because it was inappropriate for their stage in life (e.g. school student). Finally, the least endorsed reason was “There are already enough people providing foster care”, suggesting that individuals were reluctant to assume there is no present need for foster carers, despite a stated lack of knowledge about foster caring (the most endorsed reason).

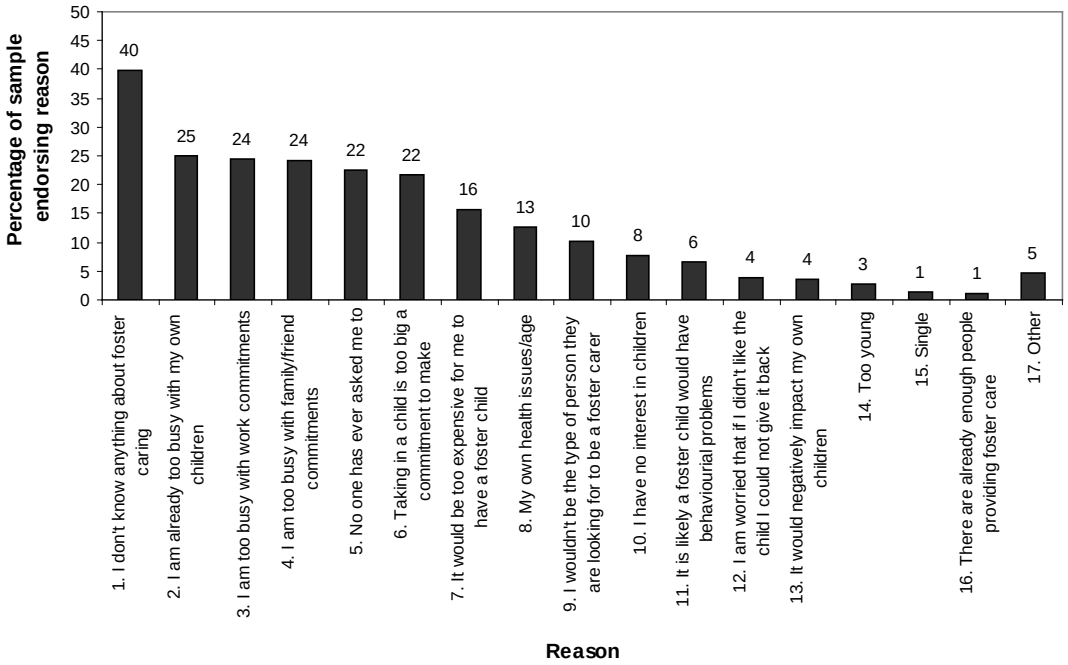

Figure 1: The reasons for not fostering a child endorsed by the total sample (*N* = 897). Reasons are rank ordered 1-16.

Segmenting the market by the consideration of fostering in future

Sample description

Of the non-foster carers, 362 respondents identified themselves as being *Potential Foster Carers* (40%) while 535 individuals saw themselves as *No Foster Carers* (60%). The *Potential Foster Carers* group (*mean* = 34 years, *SD* = 9.62) was significantly younger than the *No Foster Carers* group (*mean* = 35 years, *SD* = 11.50, $t(880) = 2.690$, $p = .007$). There was a difference in the sex breakdown between groups, as the *Potential Foster Carers* group (219 females, 61%) was significantly more female than the *No Foster Carers* group (281 females, 53%, $\chi^2(1) = 5.56$, $p = .018$). In addition, significantly more *Potential Foster Carers* (162, 45%) had children than the *No Foster Carers* group (197, 37%, $\chi^2(1) = 5.655$, $p = .017$).

Analysis of the raw frequencies identified that there were no significant differences between groups on any of these dimensions – personal income ($\chi^2(7) = 5.59$, $p = .588$), employment status ($\chi^2(4) = 0.54$, $p = .970$), education level ($\chi^2(7) = 4.61$, $p = .708$) and marital status ($\chi^2(5) = 9.46$, $p = .092$).

Results

The comparisons of reasons not to foster care between the *Potential Foster Carers* and *No Foster Carers* groups are summarised in **Table 1**. Although there were no significant differences with respect to most stated reasons, those that discriminate between *Potential Foster Carers* and *No Foster Carers* provide valuable insight which has practical implications for foster care providers. *No Foster Carers* indicated significantly more frequently that they were too busy with family/friend commitments, had no interest in children, and that taking a child was too big a commitment to make. This group was also older, less likely to be female and had fewer respondents already with children than the *Potential Foster Carers* group. All of these reasons are characteristics of the person rather

than indicating a weakness in the way that foster organisations communicate or support their foster parents, or in the way that foster care is regulated in Australia. In other words: it is unlikely that anything external will change the minds of *No Foster Carers* and convert them to *Potential Foster Carers.*

The situation is quite different for the *Potential Foster Carers* group. This group is significantly more likely to indicate that no one had ever asked them, while they were marginally more likely to indicate that they were either too young or single than the *No Foster Carers* group.

The results for the *Potential Foster Carers* group indicate that the factors that prevent them from fostering a child are not, as in the case of *No Foster Carers,* all related to unchangeable family characteristics. Instead, it appears that a number of factors which are in the control of the foster organisation or government could be changed to increase fostering activity in this group, such as improved communication with this segment, by explaining to them what fostering means, what the responsibilities are, what kind of support is offered to foster families, and who is eligible to provide foster care. Furthermore, the trend towards younger respondents in the *Potential Foster Carers* group, as identified in the difference in mean age between groups and the marginal difference in endorsement of the reason "Too young", might suggest that communication to individuals open to foster caring might be an ongoing one that supports those individuals' decision-making to the point of commitment at a later stage.

Table 1: Reasons for never having been a foster carer by group.

Reason	Group	Yes	No	χ^2 (*p*)
a. I don't know anything about foster caring	*No foster carers*	213	322	0.005 (.942)
	Potential foster carers	145	217	
b. I am too busy with family/friend commitments	*No foster carers*	156	379	18.703 (.000*)
	Potential foster carers	60	302	
c. I am already too busy with my own children	*No foster carers*	146	389	3.433 (.064)
	Potential foster carers	79	283	
d. I have no interest in children	*No foster carers*	61	474	25.691 (.000*)
	Potential foster carers	8	354	
e. It would be too expensive for me to have a foster child	*No foster carers*	81	454	0.335 (.563)
	Potential foster carers	60	302	
f. I am too busy with work commitments	*No foster carers*	138	397	1.367 (.242)
	Potential foster carers	81	281	
g. It is likely a foster child would have behavioural problems	*No foster carers*	38	497	0.889 (.346)
	Potential foster carers	20	342	
h. It would negatively impact my own children	*No foster carers*	21	514	0.227 (.634)
	Potential foster carers	12	350	
i. I wouldn't be the type of person they are looking for to be a foster carer	*No foster carers*	60	475	2.050 (.152)
	Potential foster carers	30	332	
j. There are already enough people providing foster care	*No foster carers*	4	531	0.872 (.350)
	Potential foster carers	5	357	
k. Taking in a child is too big a commitment to make	*No foster carers*	143	392	20.353 (.000*)
	Potential foster carers	51	311	
l. I am worried that if I didn't like the child I could not give it back	*No foster carers*	23	512	0.558 (.455)
	Potential foster carers	12	350	
m. No one has ever asked me to	*No foster carers*	76	459	51.298 (.000*)
	Potential foster carers	125	237	
n. My own health issues/age	*No foster carers*	80	455	6.019 (.014)
	Potential foster carers	34	328	
o. Too young	*No foster carers*	8	527	7.092 (.008)
	Potential foster carers	16	346	
p. Single	*No foster carers*	3	532	6.064 (.014)
	Potential foster carers	9	353	
q. Other	*No foster carers*	19	516	3.158 (.076)

Conclusions, limitations and future work

This study has provided insight into the barriers that most commonly prevent members of the Australian population from becoming foster carers. In addition, taking account of the differences between groups within the sample yielded an improved understanding into the structure of the “potential” foster carers market.

Segmenting the market according to individuals' likelihood of becoming a foster carer in the future has enabled the identification and profiling of those individuals who already have some degree of sympathy for the foster care system and are therefore most likely to respond to recruitment campaigns. Findings indicate that the group who would consider fostering in the future are significantly younger, more likely to be female and more likely to already have children of their own. Some examples of attracting this group could involve communicating through women's magazines, through social clubs dominated by women, or through children's sporting clubs where mothers are likely to be volunteers. This group was also more likely to indicate that they had not been foster carers because no-one had ever asked them to. This finding suggests that one way to increase foster care involvement is to make it more obvious how people can become carers and to make the process easier, perhaps by providing opportunities where people are asked by someone they know to become carers.

The results also provide some guidance as to how the foster care system could be improved to make the prospect of fostering more attractive to those who have considered it in the past. For example, the 6th most commonly cited reason for not fostering amongst this group was that they thought it would be too expensive to have a foster child. This indicates that the amount foster carers are paid does influence potential carers' decisions, and that ensuring payments are at a level which does not create a financial burden for carers would make the role of a carer less daunting for some.

The theoretical contribution of this study lies in the acknowledgement that the foster care market is not one homogeneous group, but instead is made up of different groups who are affected by the various barriers to foster caring to different degrees. This insight is critical to understanding the barriers to fostering between individuals in the Australian population. This research can be used to help foster care agencies to develop more targeted marketing and communications strategies that are more effective in attracting future foster carers.

This study is limited by the fact that it is unclear how seriously the *Potential Foster Carers* actually do consider foster caring and if they would ever become carers. It is likely that this group consists of people with serious intentions and others who would less seriously consider fostering a child in the future. Clearly these different types of people, although grouped in the same category, are very different prospects for agencies trying to recruit carers. There is also the possibility (due to the sensitive nature of foster care), that individuals provided responses that they felt were socially desirable and that this overinflated the percentage of the population who would consider fostering in the future. More research is needed to develop better measures of the intention to provide foster care and to identify the main predictors of those who have serious intentions and are therefore most likely to respond to recruitment.

Another open question for future research is whether the identified barriers are genuine barriers indicating fundamental problems within the Australian foster care system or whether they are merely misconceptions which can be addressed by improving communications strategies. International research indicates that negative public perceptions of foster care discourages potential carers from considering the prospect seriously (Jarmon et al. 2000). This is relevant in the above discussion of the perception that having a foster child would be too expensive. If this belief is based on accurate knowledge of how much carers actually get paid then this is indeed a public policy issue which needs to be addressed by governments and foster care agencies. However, if it is based on inaccurate perceptions of the amount that

foster carers get paid, then it is a communication issue which can be addressed by information and education campaigns targeted at specific groups. Investigations into each of these subject areas would provide valuable guidance to foster care recruitment managers regarding where they should be concentrating their marketing and promotions efforts to make the most efficient spend of their limited resources.

Acknowledgements

This research was funded through an ARC Linkage Grant (LP0776569) in collaboration with a regional provider of foster care, CareSouth.

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CHAPTER 14

What foster care can learn from disability care: A theoretical model

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Keywords
Foster care, children, disability, attachment relationships

Abstract
Children who are removed from their families and placed in foster care bring with them their own personal history of abuse, neglect, and consequent insecure attachment patterns. These non-optimal environmental influences are likely to have negative repercussions on the child's development, resulting in maladaptive social behaviour and emotional regulation. As such, it is argued that a child in foster care lives their life in the context of a social, emotional and behavioural disability. Therefore comparing the provision of foster care and a parent caring for his or her own child with a physical and/or mental disability brings to light both significant similarities and differences. Through such a comparison, a theoretical model of foster care has been developed which, once tested against the realities of practical foster care experience, has the potential to influence initial training, ongoing support (particularly in times of crisis), and the ultimate retention of foster carers. An important consequence of this is the potential to improve foster care services to children who have been removed from their family home, and thus empower these children to live and develop in a socially acceptable and self-improving manner.

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Introduction

A foster carer's provision of care in a protective out-of-home care (OoHC) placement for a child who has been removed from an undesirable home environment can be paralleled with a parent's provision of care for a child with a disability. It will be demonstrated that a child's enduring physical or mental disability can have the potential to significantly undermine the parent's capacity and desire to provide that child with the type of paternal warmth and care that reflects the self-identity of a responsive and nurturing parent. Furthermore, it will also be shown that where the fragmentation of capacity and self-identity occurs, then an insecure bond of attachment between parent and child is more likely to develop. When this adverse and regrettable relationship eventuates, the emotional, mental and even physical well-being of both the child and parent is highly likely to suffer as a result. However, certain characteristics of both parent and child can lead to secure bonds of attachment being developed, even in the face of any adversity brought about by the child's disability. Furthermore, this security of attachment will invariably lead to a certain consistency and predictability for the child – that is, this parent will always be present to respond to the needs and affections of the child, irrespective of any difficulties that may arise. Similarly, the

security provided by this dependability can even occur from a "good enough" quality of parenting. From the perspective of a parent's care for a child with a disability, both a divergence and a parallel will be established with the situation of a foster carer who takes the emotionally, physically, and/or sexually abused child into the protective environs of his or her home.

Parent-child relationships in disability care

Research has shown that caring for a child with disabilities can be exhausting and at times painful, both physically and emotionally (Landsman 1998). The strain and effort required to provide care for a child with special needs can have major impacts on a carer's own state of well-being, as well as on the family overall. Findings also suggest that infants with certain types of disability (e.g. developmental delays) are less able to engage in attachment-eliciting behaviour (Howe 2006a). Many children with disabilities lack the capacity to effectively communicate their emotional and mental states to a caregiver due to the impairments that they experience (Howe 2006b). For example, children with Down's syndrome tend to be less vocal than other infants, and their interest in conversation is often less developed (Beeghly & Cicchetti 1997), while children with autism generally have difficulty understanding other people's views, feelings and mind states (Baron-Cohen, Leslie & Frith 1985). If, as this research would suggest, the mutual processes of parent-child communication are affected by a child's disability, then parental stress is also likely to increase as a result of not being aware of the child's needs, and therefore not being able to respond to them appropriately. Hence, as a result, it would be unreasonable to expect levels of caregiving that demonstrate a response as strongly focused on the child's needs as may otherwise be present (Howe 2006b).

The double-edged sword of the provision of care

This possible and unfortunate absence of affective contingency between the child and the parent conjures up the metaphor of a double-edged sword. The child's disability (even a mild disability) becomes the source of increased physical, emotional and mental demands on the parent. Consequently, a parent's intense effort to relate adequately, warmly and affectionately towards his/her child does not result in a mirrored response from the child. A barrier therefore develops between the parent's expectations of a child who will recognise and reflect their outward signs of affectionate and nurturing endeavours and the child's ability to (even partially) fulfill these expectations. Over time, a number of aspects may begin to decay for the parent, including emotional resilience, physical energy, willingness to become the responsive parent, and ultimately, self-identity as a parent. The end-point of this downward spiral can be debilitating, potentially leading to a thought and feeling state that confronts the self-identity underpinning the role of parent, and increases the chance of developing a parenting style that is either somewhat dismissive and neglecting, or abusively damaging. Once more, like a double-edged sword, this contradiction between expectation and outcome can cut both ways, weakening and even fragmenting the parent-child relationship, and dissipating the parent's dreams and efforts to love and care for this child, regardless of the physical or mental drawbacks he or she might experience.

To expand further on the metaphor of the double-edged sword, the parent of a child with a disability would be better able to manage a blade that cuts in a single direction than a blade that cuts both ways. If a parent's sensitivity and outward displays of affection were rewarded by receiving a similarly affective response from the child, then he or she would manage the stresses of caring for a special needs child with a greater resolution than could be reasonably expected without such a reciprocal response. Such interplay of sensitivity between two people is a well-established foundation for a fruitful experience of any human relationship

(Bowlby 1979). However, when stress and sensitivity inversely interact with each other, the threat to the child's well-being, as well as to the parent's ability to support and nurture that child, becomes an increased burden. As a double-edged sword, such a threat can impact upon the parent in two distinct ways. Firstly, the parental response to the child is likely to be negatively affected, leading to a potentially insensitive, or at best, non-optimal, provision of care. Secondly, in the face of a minimal response from a child with a disability, these parents may journey down a path of self-abnegation, forfeiting their desires for intimate interaction with their children, yet also finding themselves continually faced with having to perceptively respond to the very special needs of their children. Not only is the outcome of an encounter with this double-edged sword one of sadness and loss, but the attachment relationship between parent and child is also likely to be impeded or even fragmented as a result. As will be later demonstrated, this provides a distinct parallel between parenting a child with a physical/mental disability and providing foster care.

A parenting orientation that fails to be open and responsive to the child's needs is likely to result in an infant developing insecure parent-child attachment relationships (Bowlby 1973; Moran et al. 1992; Clements & Barnett 2002). It is therefore not surprising that much research has found a higher prevalence of insecure parent-child attachment patterns amongst children with disabilities than amongst children without disabilities, and whose families are therefore more readily characterised by stable and secure relationships (e.g. Stone & Chesney 1978; van Ijzendoorn et al. 1992; Barnett et al. 1999). When a parent struggles to sensitively engage a child (whose disability does not hamper an awareness of the parent's mental and emotional state), there exists a strong possibility that the child will perceive the parent as being insensitive, and so become distressed by the perception that his or her needs are being misunderstood, unrecognised or ignored (Howe 2006b). This can in turn exacerbate a confrontational behaviour style in the child, further adding to the carer's stress and increasing the child's perception that the parent is being insensitive to his or her needs for care and warmth. Consequently, the child's behaviour worsens, the parent's frustration and apparent insensitivity increases, and once again the metaphor of the double-edged sword applies.

Positive disability care

Despite the clear challenges faced by the parent of a child with any disability, research has suggested that an acceptance of the disability as a reality can have a positive effect on the parent's state of mind, and therefore on the relationship between parent and child (Marvin & Pianta 1996). A further supportive outcome of this acceptance is a change in the parent's outlook from one of helplessness and hopelessness to an outlook characterised by resilience and self-efficacy. This resilience and self-efficacy can enable the parent to form more realistic expectations in regards to their child's responses, seek personal support when necessary, and generally remain more positively focused throughout the course of ongoing parenting challenges.

Although research suggests that children with disabilities represent a higher proportion of insecure attachment relationships and behaviours than children without disabilities, a significant minority still form secure attachment bonds with their parents (Howe 2006b). This significant minority offers a hopeful suggestion to parents of children with a disability that it is possible to effectively address the stressful demands of caring for that child. These parents demonstrate characteristics that place them in a position to bond with their child in a secure attachment relationship, rather than respond to the child in the somewhat dismissive manner that is likely to result in an insecure parent-child attachment bond.

Research has shown that parental response to the reality of their child's functioning in life being hampered by a disability has a significant bearing on attachment formation. For example, Morog (1997) found that mothers whose mindset regarding their child's disability remained unresolved were more likely to have children classified as insecurely attached. Marvin and Pianta (1996) also suggested that it is the parent's resolution of this reality that significantly impacts on the ability to develop a secure parent-child attachment relationship. The findings of both Morog (1997) and Marvin and Pianta (1996) point towards a potentially greater concern – namely, the development of a disorganised attachment bond between parent and child, wherein the parent becomes the child's source of both comfort and alarm (Carlson et al. 1989; George, 1996). An unresolved mother may display inconsistent behaviours towards interacting with her child. The child seeks comfort from the mother's loving gestures, but is distressed by her dismissive gestures, and the child's resulting confusion has a great potential to lead to the development of disorganised patterns of attachment. Research findings such as those mentioned above support the view that the parent brings important characteristics to the development of a secure parent-child attachment. The child's disability (and resulting behaviour) may on occasion lead to some level of parental indifference, which can often be rationalised by the concept of "good enough parenting", that is, a parenting style characterised by providing what the parent considers to be adequate care for the child ("good enough"). However, due to a minimal response from the child the parent does not experience the motivation to go above and beyond in terms of their emotional responses towards that child. These occasions of indifference are likely to have only a slightly negative effect on the positive quality of the attachment relationship where the parent has been able to resolve the inner conflict regarding the reality of their child's disability. That is, when the parent is able to resolve this issue of inner conflict, then he or she will remain more emotionally available to the child (Howe 2006b).

A secure attachment relationship is characterised by the consistent emotional and physical presence of the primary caregiver to the child (Bowlby 1982). This consistent presence enables the child to believe that regardless of whatever pleasant or unpleasant circumstances they might enter, the caregiver will always be there to protect, support and delight in the child (Marvin et al. 2002). The child believes that the parent will never abandon him or her. This belief becomes the foundation of the consistent stability founded in ongoing support for the child, and further reflects the fact that the biological parents will always be the child's carers (unlike the child who is taken from the family home and placed in the care of a foster carer). Research has shown that despite the unavoidable hardships that arise as a consequence of caring for one's own child with a disability, few parents express a desire to remove themselves from that situation (Landsman 1998). Even in the case of the child displaying insecure attachment behaviour patterns, the natural love of the parent for his/her child appears to result in him/her continuing to care for and love his/her child, even if this care resembles a "good enough" parenting style. A "good enough" parenting style will still enable the child to remain confident that the parent will continually be a predictable and dependable presence to the child – an essential feature of a secure relationship. The demonstrated belief that "this is my child" and "he/she will stay in my care" is both a feature of providing a stable quality of care for one's own child as well as a source of reassurance for the child.

Foster care parallels

The perception held by a child with a disability that his or her stressed and frustrated parent is somewhat insensitive to the child's needs is mirrored in the genesis of situations that lead to a child being removed from his or her family. Foster care scenarios occur when a parent, for one reason or another, abuses or neglects his/her child, and is therefore considered to be unfit

to maintain custody of that child. Whether the abuse is physical, emotional, or sexual in nature, the child learns that his or her needs are not valued or even heard by the parent, and therefore believes that the parent is unavailable or unwilling to meet these needs. As with caring for a child with a disability, the less sensitive the parenting, then the higher the risk of developing insecure internal working models of attachment (Bowlby 1973; Moran et al. 1992; Clements & Barnett 2002). Hence, the child who needs to survive situations of abuse will generally learn to see life with its challenges and demands through the lens of an insecure attachment relationship. This is especially true in those cases of disorganised attachment where the parent, as the source of distress for the child, is also the one to whom the child goes for relief from this distress. The child will seek to survive abusive situations by anticipating the world as hostile, responding to that world in an antagonistic, though self-protective manner, and learning to mistrust others (Folman 1998; Gauthier, Fortin, & Jeliu 2004; Howe & Fearnley 2003; McWey 2004; Schofield & Beek 2005). Succinctly, the child's world view becomes one of impaired emotional regulation and social interaction (Bowlby 1979). In other words, the child's identity gradually becomes one of *social, emotional, and behavioural disability*. That is, the child who is removed from the family home and placed in foster care, and who has experienced this removal in the face of emotional, physical and/or sexual abuse, may be considered as a child who suffers a disability – a disability that acts as a barrier to establishing fruitful and fulfilling relationships with other people, particularly with future care providers. In situations of physical and/or mental disability, the parent's provision of sensitive care is affected by the type of behaviour expressed through the context of the child's disability. So too can the sensitivity of a foster carer's response be adversely affected by the child's social, emotional, and behavioural disability. In both cases, the child is the passive recipient of disability. However, in the case of the child removed from the biological parents, the disability is incurred through emotional, physical or sexual abuse, and is often not recognised as such. This further intensifies the difficulty of providing sensitive care for the child, which must eventually be assumed by the foster carer. Consequently, the foster carer's mental resolution of the foster child's disability (although not necessarily understood by the carer in those terms) may be seen to effect various qualities of carer sensitivity, and consequently, various qualities of attachment bonds. In response to the double-edged sword analogy, the interaction between increased carer stresses and minimal child responses can influence the overall nature of the foster caring relationship as with the case of the parent who strives to care for the child with a physical and/or mental disability.

A parallel also exists between the expectations of foster carers and the expectations of parents whose children experience disability. Foster carers have generally been found to perceive themselves as competent resources and their homes as ideal environments for providing optimal levels of child care and development (e.g. Buehler, Cox & Cuddeback 2003). Furthermore, research has found that carers often initially expect that a child coming into their care will respond positively to their genuine offer of love, safety, and stability (e.g. Isomäki 2002). Several commonly cited reasons for undertaking the role of foster care centre around a concern for children and their welfare, and a desire to help underprivileged children (e.g. Buehler, Cox & Cuddeback 2003; Brown & Calder 2000; Denby, Rindfleisch & Bean 1999; MacGregor et al. 2006). Understanding this conglomerate of expectations alongside the carer's dawning realisation that this foster child has brought insecure attachment issues into the foster placement illustrates a potential mismatch between the carer's expectations and actual experience. The impact of this mismatch cannot be underestimated, as the relationship between the foster carer and child plays such a vital role, not only in the development of future attachment relationships, but also in the outworking of the individual foster care

placement. A similar contradiction between expectation and actual experience can also occur for parents when their child is born with or develops a disability. It must be noted, however, that while the contradiction is both unexpected and painful for both the parent and the carer, the carer *chooses* to bring that child into his or her home whereas the parent does not choose to give birth to a child with a disability.

Divergence of choice

Foster carers make a conscious choice to undertake the role of providing care for a child removed from his or her home, and they continually make choices in their provision of ongoing care that lead to either the continuation or the termination of that original choice. That is, foster carers have the option of terminating placements if they decide at any point that the stress of caring for the child placed in their care has become too burdensome. However, if they continue to provide care, even in the face of emotional (and other) burdens, they find themselves in a situation where they must remain accountable to an external source – the foster care agency. While the choice to take on the role is their own, their implementation of this choice is subject to the supervision of this external authority. In the case of the parent who cares for the child with a disability, the ongoing choice to provide care also carries with it continuing emotional (and other) burdens. However, unlike the foster carer, any measures ensuring the autonomy of control around this choice remain the responsibility and right of the parent.

The distinction between levels of choice and autonomy amongst these two types of care provision is significant in terms of understanding each form of care provision, particularly foster care. If we are able to understand the nature of care shown to a child with a disability, and the nature of care shown to a child removed from his or her home environment as reflecting each other in significant ways, then we are also able to understand the goals of both provisions of care as reflecting each other. Both the parent of a child with a disability and the foster carer can be viewed as having the same ultimate goal, namely the goal of empowering the child to live in spite of his/her disability. Regardless of whether this disability is physical or mental, or (as in the case of a child in foster care) social, emotional and behavioural, any child with either disability will be dependent on caregivers who genuinely care about supporting him or her to live independently in the world in spite of his/her disability. It must also be noted that in the case of both types of disability, the disability might be so immobilising that empowerment will always require the protective scaffolding of ongoing parental support. The continuity of support in this circumstance will depend on the choice of the parent or carer to persist in looking after the child, regardless of the challenges this choice might incur. However, in both cases, the severity of the child's needs might necessarily end in both parent and carer bringing their choice to continue to provide care to an end.

Divergence in termination

A further divergence in understanding the provision of care from the perspective of both types of disability can be found in the situation where an OoHC foster placement terminates. In the event that a foster child's social, emotional or behavioural disability influences his/her behaviour to such an extent that the foster carer's coping mechanisms are insufficient, the OoHC placement will break down. The history of past neglect and insecure attachment (i.e. disability) that a child is likely to bring with them into the placement has the potential to negate any positive expectations the foster carer holds, particularly regarding their relationship with the child. Children who have developed insecure attachment patterns with their family of origin are likely to enter the foster care placement and view their new caregiver through the same lens as they viewed their parents (Bowlby 1973). When this

insecure pattern of attachment continues in the relationship between the child and the carer, and when the foster carer's expectations regarding their relationship with the child are not met, then there is a significant possibility that the foster carer will experience considerable difficulties in his/her provision of care (e.g. dealing with the child's maladaptive behaviour), and the chances of the OoHC placement breaking down increase.

This issue of placement breakdown is unique to foster care scenarios, and it is also bifold. On the one hand, when the hostile behaviour of the child in OoHC overwhelms the coping resources of the foster carer, the carer has the option of withdrawing from the agreement to provide a home for that child. On the other hand, in those circumstances where the relationship between the child and the carer strengthens, and the child consequently becomes more empowered towards self-sufficiency and self-direction, the possibility of the OoHC placement terminating can also occur. In this case, the child will be removed from this care situation and returned to the biological parent (provided that the biological parent can sufficiently demonstrate a capacity to effectively care for the child). This potential can have seriously detrimental consequences for the foster carer and sometimes even for the child. Such a threat is not evident in the situation of parents who care for their own child with a physical and/or mental disability, as they have the ultimate right to maintain custody of their child. As such, foster carers can be seen to be in a difficult situation whereby an outcome that would generally be perceived as positive (i.e. development of a secure attachment with the child) leaves them in a state of constant personal tension and threat since they are faced with the possibility of having the child with whom they have bonded taken away from them.

A model of foster care

The disparities and parallels between the provision of care expressed by the parent of a child with a disability, and the provision of care expressed by a foster carer to a child with an emotional, behavioural and social disability, enables the development of a model of foster care from the perspective of the foster carer. Such a model will promote an understanding of the inner workings and conflicts that can arise within the context of a foster care placement. A proposed model of foster care incorporating important dimensions of attachment is presented below.

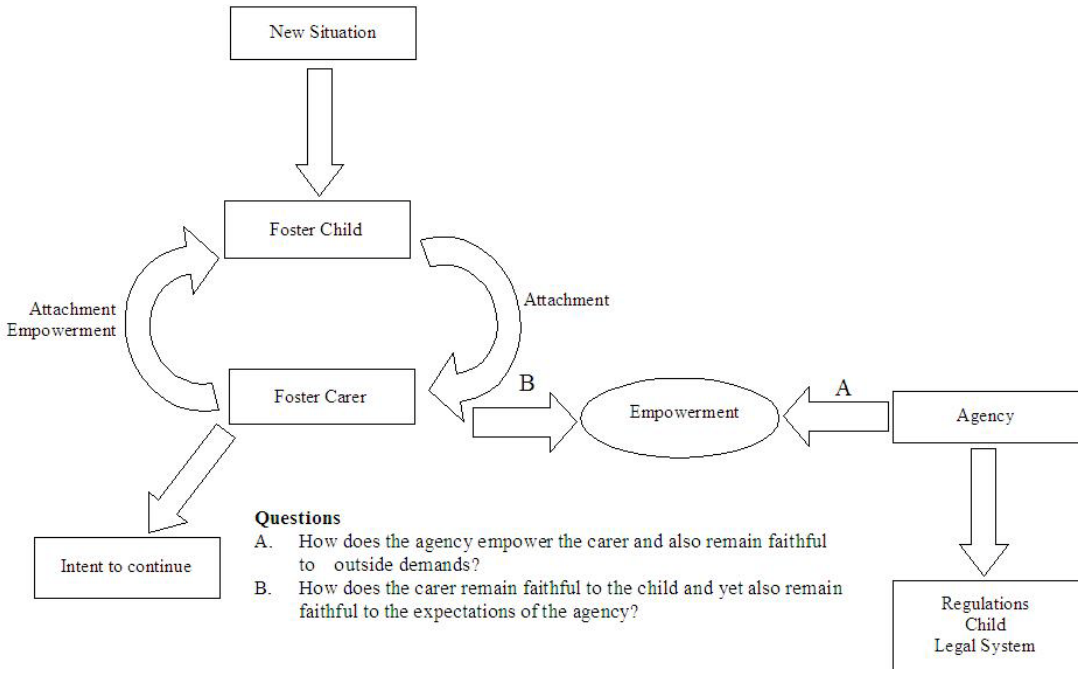

Figure 1. Proposed model of foster care

In this model, the relationship between child and foster carer can be seen operating on the left side of the flowchart. Firstly, the child's attachment behaviour towards their new caregiver is observed, and the carer in turn responds to the child in the context of their newly developing attachment relationship, while also empowering the child towards heightened levels of self-efficacy and self-concept – that is, to live in spite of his or her disability (understanding the circumstances of the child in foster care as representing a social, emotional and behavioural disability). This interaction is cyclic, so that as the child begins to form more significant bonds with the foster carer, the foster carer also begins to bond more with the child. As this attachment relationship develops and is strengthened through the mutual involvement of the carer and child, the level of empowerment consequently increases. Where this relationship cycle is positive, it is believed that the foster carer would be encouraged to either continue or repeat the OoHC experience. Conversely, if secure bonds of attachment do not form, this cycle diminishes, the child is not empowered to live in spite of his or her social, emotional and behavioural disability, and the relationship (and also the placement) deteriorates. It is also noted that this cycle may not necessarily continue in just one direction. For example, it may be the case that the relationship between the child and the foster carer initially begins positively, until circumstances arise that act as a catalyst for a period of deterioration within the relationship. External influences are likely to exert both helpful and hindering effects on the interaction between the foster carer and the child, culminating in positive or negative impacts (respectively) on the foster carer's level of satisfaction and intention to continue to provide care.

The concept of empowerment also serves as the dynamic link between the OoHC placement and the agency responsible for its implementation. Any attempt by the agency to empower the foster carer in his/her task of providing care must be seen in light of the limitations and regulations surrounding the provision of OoHC, the needs of the child and accountability to the legal system. According to the model, the carer looks towards the agency for support and to be empowered in carrying out his/her role. This seeking of empowerment is seen against a backdrop of concern for the individual child in foster care, the relationship experienced with the said child, and the desired outcome of empowering the child to live in spite of his/her disability. For a foster carer to effectively provide this empowerment, he/she must firstly be empowered. As such, the link of empowerment between the foster carer-child relationship and the agency responsible for the OoHC placement takes on great significance. In light of the restrictions and limitations as experienced by the agency, is it possible to empower the foster carer within his/her role of providing care to the extent that he/she will be able to effectively empower the foster child to live in spite of his/her disability? This question may be viewed as two separate, yet related, questions regarding the interaction within the model. Firstly, to what extent is it possible for the agency to empower the foster carer as the frontline respondent to the child's needs in the OoHC situation, and yet still remain faithful to external accountabilities? Secondly, to what extent is it possible for the carer to remain faithful to providing for the child's needs (specifically, secure attachment and empowerment) and yet also to remain faithful to the expectations of the agency?

A possible tension arises from these questions, and between the distinct accountabilities imposed on both the agency (accountable to the foster carer on one hand, and the legal system on the other) and the foster carer (accountable to both the agency and the child). The resolution of this tension lies in providing a balance between what the agency expects of the carer and what the carer is authorised to do in relation to helping the child in care. This is a balance of trust on the one hand, and of competence on the other, that is, trusting the foster

carer to provide care in a manner that is consistent with legal guidelines, while acknowledging the carer's competence in carrying out their role. This balance will occur where the needs of the foster carer (in terms of training and ongoing support) are recognised and adequately provided for. The tension can also be seen as a measure of accountability, namely the accountability of the agency towards the carer for adequate preparation and support, and the accountability of the carer towards the agency to care for the child from the perspective of this training and within legal and ethical guidelines.

Within the exercise of foster care itself, this tension can reflect either poorly or positively on the child in the OoHC placement. That is, it will reflect poorly where the tension blocks the possibility of providing a supportive, securely attached and therefore nurturing environment for the child. The inverse of this is also true. The tension of accountability might be addressed between the carer and the foster care agency, even without both parties being fully comfortable with the outcome. However, if the child feels insecure as a result of attempts to resolve this tension of accountability, and consequently wonders if their new home will be available to them in the future, then this tension and the demands surrounding it act as an erosive influence that holds the potential to detrimentally affect the well-being, future happiness and empowerment of the child. This latter issue does not generally arise for the parent of a child with a physical and/or mental disability (although in some cases it might). However, as an issue that is inherent in the selection, overview, and control of the OoHC placement, this issue has the potential to significantly damage both the child in care and the person providing this care, as well as the agency itself by further undermining the goals and mission of its endeavours.

Conclusion

The value of this theoretical model of foster care therefore lies in understanding significant issues within foster care placements. It has the potential to inform essential aspects of foster carer training and ongoing support, especially the impact and resolution of the tension described in the above paragraph. In other words, the implications of the relational processes set forth in this model have the potential to improve the quality of life for both foster carers and children in care through specifically addressing each of their individual needs. However, the model first requires testing against the real world situation of OoHC placements and the manner in which that care is experienced by foster carers. Only after an assessment of how well this theoretical model fits with practical foster care experiences can specific implications arising from this model be meaningfully identified. However, the discussion undertaken in this paper and the development of this model at its root level at least stimulates a very significant and important, though simple, underpinning question, namely, what needs to be effectively addressed as a matter of urgency to help foster carers to simply "do their job"?

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CHAPTER 15

Measurement and the decline of moral therapy

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Keywords
Mental illness, statistics, accounting, history, moral therapy, quantification

Abstract
The key theme of this historical paper is to highlight the misallocation of resources that can result from mis-measurement in social programs. The social phenomenon explored in this paper is a treatment for mental illness practiced in 19th century Britain called "moral therapy".

One of the factors in the rise of moral therapy was that moral therapy asylums could point to mathematical, "scientific" cure rates based on discharge and readmission rates to moral therapy asylums. These cure rates were far higher than the cure rates of other, merely custodial institutions of the time.

However, failure to properly allow for the difference between acute and chronic mental illness in the way that cure rates were calculated for these institutions led to a decline in funding for moral therapy asylums.

This paper provides a cautionary vignette of how the (mis)use of statistics influenced an important social policy in 19th century Britain. Quantification also profoundly coloured the view that 19th century legislators and mental health professionals held of the curability of mental illness and hence the appropriate treatment and funding models used.

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Introduction

This paper traces the ascendency of a particular treatment for mental illness, "moral therapy", in 19th century Great Britain and the role of the misuse of quantification and statistics in the decline of moral therapy towards the end of the 19th century. This paper is relevant to researchers in accounting history because it is an interesting illustration of the power of numbers and statistics and how they can be misunderstood and misused.

The rise of institutionalisation in mental illness

Institutionalisation is characterised by Scull (1984, p.16) as the shift from the predominantly medieval treatment of people with mental illness to the modern treatment begun in the 18th century. The medieval approach to mental illness had two main points of interest to the current analysis. Firstly, it regarded the care of people with mental illness as chiefly the concern of their families or parishes (local communities). Secondly, it made little

discrimination in treatment between the various types of deviancy or dependency (Scull 1984, p.17).

The 'modern' approach to people with mental illness begun in the early 18th century had the following key attributes (Scull 1984, p.15):

- The development of a rationalised, centrally administered approach to mental illness with the substantial involvement of the State.
- The rise of institutions providing the segregation of various deviant and dependent classes of people from society at large.
- The making of distinctions between various classes of deviant and dependent populations. For example, different treatments, expertise and professions were assigned to people with mental illness than were assigned to 'the deserving poor', criminals, or the physically ill.

This 'modern' approach is not to be confused with the 'community care' approach of the 20th century.

Setting the stage – care of people with mental illness in the 1800s

Private 'madhouses' and some charitable asylums emerged in the 18th century. For example, Scull (1993, p.18) mentions small charitable institutions being founded in Norwich (1713), Newcastle upon Tyne (1764) and Manchester (1766). However, these were small institutions and housed only a small fraction of people with mental illness in England (Scull 1993, p.25). The majority of people with mental illness in 1800 were still cared for either by their families or by their local parishes. Smith (1999, p.12) points out that in 1800 there was a "mixed economy of care" in mental illness involving the private sector madhouses; care at home; and institutional care in the form of the workhouse, 'boarding out' of lunatics and outdoor relief granted by parishes to the insane and their families.

It was not until 1808 (with the passing of the "Wynn's Act" or, to give this Act its full title, "An Act for the Better Care and Maintenance of Lunatics, being Paupers or Criminals in England") that magistrates were given discretion to grant asylum accommodation for pauper lunatics by raising a levy in the local area (Scull 1993, p.28; Smith 1999, pp.23-24). Because of the tremendous diversity in these institutions, there was a great variety in the treatment and care that their inmates received (Scull 1993, p.18). Generally, conditions in asylums in 1800 were overcrowded and inhumane – as will be discussed in greater detail later.

In the United States of America, the development of asylums appears to have lagged behind the developments in England. Before the American Revolution of the late 18th century, care of the mentally ill was substantially a matter for families and (where family care was not available) the local community (Grob 1994, p.6). Colonial America's lack of institutions was ascribed by Grob (1994, p.21) to the particularly low population density making the family and local community care model the dominant one.

This low population density did not last. According to Grob (1994, p.23) immense demographic and economic changes between 1800 and 1850 as well as the "privatisation of family life" and separation of home and the workplace brought by the emerging urban-industrial society, led to the breakdown of traditional arrangements for the care of people with mental illness.

By 1800, institutions such as the madhouses at Williamsburg, Virginia, Pennsylvania, and New York had opened, but the clear majority of people with mental illnesses were outside specialist institutions (Grob, 1994, p.19). The use of the term "specialist institutions" must also be used with caution, as Grob (1994, p.18) pointed out that there was little difference between conditions in an almshouse (also known as a "workhouse" or a "poorhouse") and conditions in a "hospital".

This situation was to change rapidly. Major asylum building projects were undertaken in the 1840s and 1850s. From 1850 onwards, institutions had become "the foundation on which mental health policy rested" (Grob 1994, p.53). This was not solely brought about by changes in economic and social structures and population density. An alternative to the family and community care model had also appeared in the form of "moral therapy" (Grob 1994, p.25). By 1800, the "moral therapy" movement began to suggest that an alternative to these inhumane madhouses or parish relief settings both existed and was effective in the treatment of mental illness. These developments were important motivating factors for the 19th century reforms yet to come.

Conditions in asylums

"Treatment" of mental illness in asylums by 1800 was archaic even by the standards of the non-asylum medical and scientific knowledge of the day. Much of this "treatment" meted out in asylums (establishments using "moral therapy" are an exception to this) dated back to the work of Hippocrates and the four humours of the human body (Jones 1972, p.7). Jones also noted that a standard text of the day (with new editions until 1821) was Burton's (1621) *Anatomy of Melancholy*. This text recommended various herbal purgatives and bloodletting to help balance the four humours of blood, choler, phlegm and bile. Somewhat more deadly were this text's recommendations of blistering the skin with hot irons and boring holes in the sufferer's skull to allow the removal of excess humours affecting the brain. Lewis (1988, p.8) and Kosky, Eshkevari & Carr (1991, p.6) also mention these treatments as taking place in England and the United States into the early 19th century. Perhaps fortunately, these "treatments" would have been available to only those patients who the asylum keepers of the time thought it worthwhile to treat.

The most famous, and possibly most ancient, of all asylums was London's infamous "Bedlam". The name derives from its site on a former priory of the Order of St Mary of Bethlehem. This institution was used for those with acute mental disorders from as early as 1377 (Jones 1972, p.12). To refute the absolute validity of Foucault's view (1965) that in the classical age madness disappeared from art and literature, conditions in Bedlam certainly represent an exception. Jones (1972, p.15) relates at least one poem (anonymous) from 1776 and a Hogarth Painting from 1733 relating to the vile conditions there. He also outlines the physical restraints and fiscal and moral scandals which characterised conditions at Bedlam until 1815 (Jones 1972, pp.16-17). An excellent quote from Dr Thomas Monro (the Monro family dominated the office of "physician" and thus the treatment at Bedlam from 1728 until 1852) clearly illustrates the disinterest in any real "treatment" or research which characterised that institution as late as 1815:

> Patients are ordered to be bled about the latter end of May, or the beginning of June, according to the weather and after they have been bled, they take vomits once a week for a certain number of weeks; after that, we purge the patients. That has been the practice invariably for years, long before my time; it was handed down to me from my father, and I do not know any better practice. (Monro, as quoted in Jones 1972, p.16).

Apart from the highly questionable standards of "treatment" received by the patients at Bedlam in 1800, other physical conditions were characterised by overcrowding, and few, if any, clothes or warmth. Dirty, insanitary straw for bedding and constant physical restraint in the form of chains (Jones 1972, p.16) were the order of the day. Both Jones (1972, p.17) and Scull (1993, p.56) point out that it is easy to be over-simplistic in damning the superintendents of Bedlam for their shameful treatment of people with mental illness. Both authors suggest that the standards of the time and the dearth of research or other models of treatment available at the time (apart from moral therapy) should be considered. Nonetheless, Scull (1993, pp.55-56) concludes that the available evidence of abuse (both physical and sexual), cruelty and misappropriation of funds available in the Bedlam archives is such that Bedlam's oppressive reputation was probably well-earned. Jones similarly concludes that:

> An institution for the reception of violent patients can never be wholly a pleasant place, and, however enlightened the policy of the authorities, there will always be patients who suffer extremely through delusions of persecution, depression or squalid habits that defy the most patient and sustained attempts at cleanliness; but the available evidence shows that the policy of the authorities (at Bedlam), even by eighteenth century standards, was very far from enlightened (Jones 1972, p.17).

So much can be said for the unwholesome conditions of patients in one institution in England in 1800. How widespread were these conditions to people with mental illness in the 1800s generally? Were all asylums as bad as Bedlam? It is hard to be sure of this. It is the most scandalous conditions that tend to be the most reported. Certainly, however, scandals occurred outside of Bedlam. Scull (1993, p.111) discusses the 1814 scandal at York Asylum. A Yorkshire magistrate, Godfrey Higgins, suspicious of rumoured abuses at the York Asylum, forced an investigation into longstanding abuse and corruption in the York Asylum:

> These investigations provided evidence of wrongdoing on a massive scale: maltreatment of the patients extending to rape and murder; forging of records to hide deaths among the inmates; an extraordinarily widespread use of chains and other forms of mechanical restraint; massive embezzlement of funds; and conditions of utter filth and neglect (Scull 1993, p.111).

The increasing size and centralisation of government and a desire for stability in 18th century society brought increased government intervention into citizens' lives. Not all people with mental illness were in asylums. Some were arrested and kept in jails or workhouses (Jones 1972, pp.17-24). According to Lewis (1988, p.2) however, the days of homogenous treatment for all "dependent" people in workhouses whether they were vagrants, alcoholics or mentally ill was nearly over by 1800. The mid 19th century brought a vogue for specialisations, and most people with (diagnosed) mental illness were thought to have been segregated into asylums by 1850.

Separate lunatic hospitals (other than Bedlam) began to open for the first time in 1751 with St Luke's Hospital in London (Lewis 1988, p.3) and were spread all over England. This was often done to clear some of the insane out of regular jails, lock-ups and standard hospitals where people with mental illnesses proved to be disruptive. Non-criminals could also be sent by their relatives to these new lunatic hospitals, although they or their parish were supposed to make a financial contribution to their upkeep. Conditions in these "madhouses" were often little different from conditions in jails at the time with heavy use of physical restraints such as manacles, chains, and strait waistcoats (similar to the strait-jackets of recent history) and

severe discipline. The staff at the time had often previously been employed as prison wardens, with little or no medical training and received poor wages and conditions. For the better-off patients, there were privately run institutions, or staff privately employed to care for people with mental illness at home.

Certainly, conditions in asylums in 1800 appear to have been such that the 19th century reformers had no shortage of material from which to draw their complaints of the inhumane treatment of people with mental illness.

The birth of moral therapy

The time from the dark ages to 1800 saw some changes in the treatment of people with mental illness even if the "treatments" were unchanged. There was the change from religious authority to medical authority over people with mental illness. There was also a massive change in the face of society. The mentally ill were still feared, but less as possessed tools of Satan than as a bad example to susceptible members of society. The emphasis was now on segregation of the mentally ill from the rest of society. This was viewed as being administratively easier than incarcerating the mentally ill along with the more general class of miscreants. Despite the half-hearted (and to today's reader misguided) treatment of the four "humours" discussed earlier, there was little sustained optimism about lasting treatment for people with mental illness.

Even King George III, who began to have depressive episodes beginning around 1790 (Kosky, Eshkevari & Carr 1991, p.3; Levine 1981, p.14), was subjected to purging and bleeding treatments which cared little for the dignity of his royal person. However, this illness of the King did serve to lend a certain aristocratic gloss to mental illness and to bring alienists into the public spotlight more than had previously been the case. But it was not until the moral therapy or moral treatment movement that there was any sustained and well-organised optimism about the "cure" of mental illnesses short of the mysterious workings of God.

Slightly before the turn of the century, but very much a precursor of things to come, was Tuke's Retreat. The religious society known as the Quakers founded a revolutionary hospital in York in the 1790s. This hospital came to be known as Tuke's Retreat. The revolutionary aspects of Tuke's Retreat were that the use of physical restraints was minimised and improvements in patients' behaviour was sought by appealing to the patients' "moral capacities" (Lewis 1988, p.8; Kosky, Eshkevari & Carr 1991, p.4). This approach of co-operation and trust between patient and therapist had adherents in Britain and America (and, to a lesser extent, Australia) in the early to the middle 19th century. This style of treatment was called "moral therapy" or "moral treatment".

This approach towards moral therapy was not sourced from Tuke's Retreat alone. According to Levine (1981, p.14) and Kosky, Eshkevari & Carr (1991, p.3) Philippe Pinel's writings of his experiments with humane treatments in Paris were translated into English in 1806 and were widely read. Thus Pinel's and Tuke's ideas were influential in the willingness to try moral therapy in America, Australia and England. The moral therapy movement can be dated either from Pinel's reforms in the Bicetre prison in Paris in 1794 or from William Tuke establishing the York Retreat in England in 1792 (Ingleby 1983, p.149).

From the previous sections, it is clear that conditions in the jails, workhouses and hospitals were often quite appalling in 1800. It will also be seen that (because of the advent of moral therapy) an alternative to these conditions was seen as both possible and desirable.

Adding impetus to the 19th century willingness to change was the fact that conditions were not only dreadful, they were seen to be dreadful. After Pinel's early protest in Paris, other reformers followed. Public attention was called to the overcrowded, cruel and dirty conditions that were the lot of almost all people in mental institutions at the time.

The rise and fall of moral therapy

The spread of moral therapy was hastened by three main factors. First, the reformers of the 19th century revealed the squalor of the asylums. This will be discussed in more detail later on in this paper. Second, the dominant mindset of the day was (somewhat) open to change and was very alive to the wonders of science and medicine, with everyone agog to see what these forces could do when allowed to work on mental illness. Finally, moral therapy was in the offing as a new, much more "scientific" and high-minded approach to the problem. It advocated self-discipline and reason – two virtues very much prized in the 19th century. Also, it worked. However, in some ways it was this very success and the fact that its support base was largely drawn from those with a great respect for science and quantification that were partly responsible for its downfall.

One of the most surprising things to the modern eye (accustomed to treatment of mental illness with medication) is just how successful moral therapy was:

> By all accounts, moral treatment was startlingly successful, even in terms entirely familiar to today's administrators – discharge and readmission rates. The Bloomingdale Asylum, for example... admitted 1,841 patients between 1821 and 1844. Of these, 1,762 were discharged, including 672 cured, 104 much improved, and 318 improved; cure was defined as minimal function within both the patient's family and society at large. Most of those discharged were not readmitted (Johnson 1990, p.7).

This is borne out by Kiesler and Sibulkin (1987, p.34) with the caveat that those judging what comprised a "cure" were philosophically committed to the system of treatment.

The success of moral therapy depended upon the relationship built up between the superintendent and the patient. In order for this to flourish, it was necessary to have the correct sort of personal magnetism in the superintendent and a sufficiently small number of patients to allow the relationship to exist. This limited number of patients was also necessary to foster a sense of community – almost of family – with the superintendent as the paterfamilias (Johnson 1990, p.7; Jones 1972, pp.49-54).

Some rather extravagant claims were made early on for the ability of moral therapy to cure patients:

> As tends to happen to true believers, their zeal for their own cause easily overcame their respect for truth, and they oversold their case by inflating their rates of cure (Johnson 1990, pp.7-8).

As time went on, of course, the cured left the hospitals whereas chronic cases remained. The cure rate was calculated by dividing the number of patients released by the total number of

patients. Once the total number of chronic (incurable) patients began to build up, taking up more and more available beds, cure rates naturally decreased.

As well as the build-up of chronic cases damaging cure statistics, two further factors brought down moral therapy. Firstly, there was a rush of immigrants to both America and Australia in the mid to late 19th century. Many of these immigrants found their new life away from family, friends and culture quite unbearable and thus the rates of mental illness in this population were high. Also, many of these new immigrants spoke little or no English and thus could hardly be expected to form any curative relationship with asylum superintendents as they could not understand them (Johnson 1990, p.9).

Secondly, the previously mentioned build-up of chronic cases was coupled with a growing population that increased over-crowding in asylums. As doubts had already arisen about the ability of asylums to cure mental illness, there was a reluctance to build new asylums to hold the increasing numbers. Gone was the suggested maximum size of two hundred and fifty patients originally mandated for moral therapy. Gone was the sense of community (Johnson 1990, p.9). Thus by the middle of the 19th century, the belief that moral therapy could actually cure people of mental illness was abandoned and beliefs in mental illness as incurable (short of miraculous intervention) returned. Custodialism ruled and treatment waned.

Moral therapy declined with large wards of (mostly) chronic patients unresponsive to treatment, and a new regime set in. Costs were rising, numbers of patients were rising, and cure statistics had dwindled. The States that funded mental hospitals thus returned to providing purely custodial “treatment” at the lowest possible cost.

Social Darwinist ideas are also cited by several authors as a factor in the decline of moral therapy (for example, Lewis 1988, p.11; Shortt 1986, p.160; Kosky, Eshkevari & Carr 1991, p.7). These ideas were influential in the late 19th century return to the belief that madness was fundamentally incurable. In trying to understand Social Darwinism’s impact it is important to understand something of the status that the scientist had in the 19th century.

This was the age of reason and enlightenment. Just as people with a reverence for science had welcomed the change to moral therapy as a more enlightened approach to madness than that of humouralism (being the study and regulation of the body’s various humours such as blood, bile and phlegm) so the new social science of Social Darwinism seemed an advance on old-fashioned notions of moral therapy. It is also to be remembered that by the mid 19th century, most of the huge, state-run mental hospitals had become too large, too overcrowded and too clogged with chronic patients to allow for the practice of moral therapy as it was first instigated. In his book on Victorian lunacy, Shortt (1986, p.160) gave two insights which illustrate the nadir into which mental hospitals had sunk by the end of the 19th century. The first of these relates to the power of science in the Victorian mind:

> Scientism, often in the specific guise of positivism, provided an optimistic, secular epistemology by which representatives of Victorian science and medicine justified their claim to authority in fields encompassing both the natural and the social sciences. Empirical investigations, not metaphysical speculation or revealed religion, gave certitude to the knowledge necessary to guide science and society in a progressive fashion and, significantly, (gave) stature to those who provided that guidance (Shortt 1986, p.160).

And by Victorian times, mental illness was (at least in the mind of "alienists" – the Victorian version of psychologists/psychiatrists) a matter properly belonging to physicians and scientists, rather than to philosophers (Shortt 1986, p.161.)

The second quote relates to the influence of "degeneration theory" (an adaptation of Social Darwinism) in the realm of mental illness:

> Borrowing from evolutionary biology, a number of psychotheorists gave detailed form to the concept of mental degeneracy. Expressed with clinical detachment and based on accepted natural science, the theory appeared to provide an objective and accurate explanation for the discouraging prospects of asylum inmates. Yet the popularity of the theory cannot be accounted for simply on the basis of the authority of the science upon which it was apparently based. Rather, degeneration theory owed its appeal less to medical credibility than to its ability to explain and naturalise certain disconcerting realities of late nineteenth century society. The inhabitants of public lunatic asylums were known to come from the working-poor and pauper class. Yet these patients were also defined as neurological degenerates. Poverty and degeneracy, in effect, were two sides of a very warped and inferior coin, a coin that was quite without value in the marketplace of industrial capitalism. In its congruence with – indeed, support for – Victorian class relationships, psychological medicine found the key to its social authority. (Shortt 1986, p.161).

Because of this pessimism about the possibilities of cure, asylums once again became holding vats for the misfits of society. Cure rates were no longer of interest. What was of interest was the cheapest per capita way of keeping the mentally ill out of society (Levine 1981, p.27; Lewis 1988, pp.26-27). These ideas of the incurability of mental illness sat well with the Social Darwinist philosophy sweeping through society at the end of the 19th century. Heredity was thought to be the primary determinant of mental illness. To encourage (or allow to breed) these weak and inferior members of the human race was to weaken the species. It was thought that to segregate and control them (and keep them from breeding) was the only thing for an enlightened society to do.

Conclusion

The rise and fall of moral therapy provides an interesting illustration of how the (mis)use of statistics influenced an important social policy in 19th century Great Britain. Quantification also profoundly coloured the view that 19th century legislators and mental health professionals held of the curability of mental illness and hence the appropriate treatment and funding models.

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CHAPTER 16

A new accountability for the moral geography of gifting relationships

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Keywords
accountability, aide, gifts, value in exchange, accounting calculus

Abstract
Extreme poverty persists in the African continent despite substantial efforts by donors of the North to alleviate poverty. Northern concepts of accountability both enable the control and evaluation of recipients of donation. It is assumed that recipients are accountable to those who provide the aid. It is argued that this relationship inherent in the accounting calculus has led to an inadequacy of accountability between geographically remote donor recipient relationships and between states of different stages of market development. Gifting relationships require a broader idea of stewardship in which both the donor and the recipient are accountable to each other. Contradictory to the rhetoric of neutrality surrounding accounting, the identity and values of the donor are embedded in the gift, making the gift more than a commodity in exchange. Instead, the gifting arrangement creates and inscribes a moral geography between donor and recipient. It is argued that this distance is enabled and perpetuated by a Northern accounting calculus. Donor/recipient financial relationships are different to economic transactions recorded in advanced capitalist states. Firstly, there is not equivalence in reciprocity in a donor/recipient relationship as is implied in an economic transaction. Secondly, in applying accounting technology indiscriminately to donor/recipient transactions, culturally determined legitimate meanings of value other than those constructed from an economic perspective are silenced. This paper proposes an alternative construction of the value in exchange.

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Introduction

Substantial efforts have been made by donors of the North to alleviate poverty from the continent of Africa, however extreme poverty persists despite the accounting profession's claim to enable an efficient and effective allocation of scarce resources (CPA Australia 2007). The "double entry" technology of accounting requires reciprocity in any transaction (Bryer 1997). In other words, a debtor is represented as an asset in the books of the creditor, and repayment or reciprocity is assumed in full. The crux of the problem is that this international accounting norm only allows economic aspects of the debtor-creditor relationship to be represented and assumes that there is full reciprocity in exchange. This is problematic for gifting relationships, whose constituent parties of donor and recipient are not conceptually equivalent to debtor and creditor, but who are represented in the same way in the accounting calculus.

The accounting profession is conspicuously silent in debates about how to resolve the allocation of scarce resources to Africa [1] where the very real consequences of failure are starved peoples. Why don't public movements such as MAKEPOVERTYHISTORY [2] seek the knowledge and skills of the accounting profession? Perhaps the answer is that accounting is more than a calculative technology, having intrinsic societal attributes of the North, making it value-laden, self-interested and having a socially constructing element (Tinker, Merino & Neimark 1982; Covaleski & Dirsmith 1988; Hines 1988). From this perspective, accounting as a measurement device can be construed as being inevitably complicit in the resource misallocation that has led to the abject poverty of many of the citizens of the African continent. This calls into question the adequacy of prevailing accountability concepts in a globalised environment as they affect global wealth distribution.

Current financial accountability practices are constructed from the position of advanced capitalist stages of exchange, and this is inadequate to impartially represent and mediate gifting relationships between advanced and emerging economic states. Such a use of accounting and its constructs of accountability disadvantage the "other" emerging African states (Broadbent 1995) and privilege the political practices of advanced economic states and organisations. Current financial accountability has developed for relationships established as a result of market exchanges. It is domiciled in axioms of the private sector and mature capitalist market mechanisms. This paper argues that in an era of globalisation where private corporations implode into the previously demarcated areas of public sector, not-for-profit bodies and lesser developed markets, that accountability which is premised on exchange theory and market economics is limited and potentially harmful. It also argues that applying private sector accountability unquestioningly to gifting leads to simulacra of accountability rather than an authentic engagement.

The second section of this paper describes the theoretical framework of Baudrillard's stages of simulacra, which is the theoretical lens that the paper uses. The third section applies this lens to historical developments in concepts of accountability to demonstrate the path of a "Northern" construct of accountability as simulacra to its most advanced stage. The fourth section analyses accountability in the North, describing the consequences of Northern interactions with associated African States. An alternate view of gifting to explain accountability relationships is proposed, describing the alternative nature of the accountability that would result from using gifting theory.

Theoretical development

It is proposed that although overtly silent, accounting / accountability is covertly present as an active ideologically biased constituent, privileging economic equivalent exchanges rather than gifting exchanges characterised by disequilibrium in reciprocity. The theoretical lens of Baudrillard's simulacra (Baudrillard 1981, Baudrillard 1983) is used to argue that notions of accountability are derived both historically and from economic exchange theory, and operate as hyper-real simulacra for good accountability in geopolitically diverse moral geographies. Mechanisms of accountability are believed by both the masses and gifting communities as being valid, are promoted by the media and are used by institutions.

In this way accountability for organisational relationships involved in providing aid has aligned itself ideologically with the existing dominant societal structures of the North. It is argued that emancipation and advancement of accountability beyond the capital dominating private sector comes from challenging the universality of prevailing market belief systems.

This theoretical approach is sympathetic with the view of Cooper et al. (2005) who argue that to have impact, any form of social responsibility accounting needs to be produced outside the mechanisms of the market, be theoretically informed, and be linked to social struggles and groups. The post-modern simulacra concept offers an alternate lens.

Arrington and Watkins (2002) argue for the necessity to explain political engagement with accountability through alternative ontological and epistemological stances. In doing so, this paper contributes to the extant accounting literature that uses a Baudrillardian framework, and builds on the theme of examining accountability as simulacra. The application of the Baudrillardian framework has been used in the work of Macintosh et al. (2000), Takatera and Sawabe (2000), Baker (2002), and Vollmer (2003). Such a theoretical approach was advocated by Macintosh et al. (2000, p.45) who claim "much more in Baudrillard's corpus of literature could be tapped for further understanding of accounting and the issues facing standard setters". This paper applies Baudrillard's concept of simulacra to accountability mechanisms of public policy and corporate governance associated with gifting and aid relationships.

While the limitations of using a post-modern framework in accounting studies are acknowledged (Cooper 1997; Arnold 1998; Mattessich 2003), this paper argues that using a theoretical framework that is not derived from neoclassical market mechanisms and that incorporates sensitivity to the political and media environment offers valuable analysis to advance theoretical understandings of accountability. Furthermore, it permits an interrogation of current notions of accountability for public policy, advancing the work called for by Roslender and Dillard (2003).

Baudrillard sees consumption rather than production as a basis of social order, arguing that the meaning given to a sign is self-referential and is derived by what the sign does not mean. Each sign has both a signifier (such as an image, a sound, or a word), and something signified (its concept or meaning). For example a swimming pool *denotes* its use as an object, for swimming as exercise or recreation. The swimming pool *connotes* a degree of functionalism, wealth, prestige or comfort. The ownership (consumption) of a swimming pool implies a place in a wider social order (Horrocks & Jevtic 1999). The swimming pool is an object which circulates in society with multiple meanings. In this way Baudrillard sees reality as being constituted by signs found in the use of language and text (for example as found in financial reports). He also proposes that objects and their signs (such as associated values and events) are constituted both historically and discursively (Macintosh et al. 2000).

Baudrillard (1983) goes on to argue that it is the consumption of images that causes objects to be organised and differentiated as signs. Recognising that in capitalist societies all objects are given a value in exchange, Baudrillard added that in advanced capitalist markets they are also given a symbolic value. It is the social role that the object plays that gives it a sign value. In this way Baudrillard (1981) sees signs such as financial records as accomplices of capitalism. He argues that capital accumulates until it becomes image, and that images mediate social relationships among people. Financial statements are not just consumed for their function, but rather for their collective meaning as determined by a calculus or network of signs (Horrocks & Jevtic 1999).

Further, Baudrillard proposes that the use of symbols and images as signs of reality has progressed throughout history, which he terms *orders of simulacra.* Baudrillard's orders of simulacra chart a progression of the use of signs in language and text in society. Baudrillard

argues that these signs first represented, then dominated, and then replaced the societal objects that they represent. Signs move from being unproblematic to being "counterfeit" to "masking the absence of a basic reality" (Horrocks & Jevtic 1999, pp.106-107). In a post-modern culture dominated by the media, it is argued that all we have are simulations which are not any more or less real than the reality that they simulate.

The object accountability as a sign in society has developed over time. Earlier constructs denoted probity, a calculative practice of reckoning, the management of resources held in trust and legitimisation. The development of limited liability saw accountability as being symbolic of a social capital (Bryer 1997). Today the object of accountability connotes a relationship of privileged power of one party over another, status (lower if you are the accountability giver, higher if you are the accountability recipient), wealth and decision making power in society. Accountability in global public policy is an object of consumption with a value in exchange and a symbolic value. Those with perceived accountability have greater access to international trade (accountability's value in exchange) and have a symbolic value of democratisation.

A Baudrillardian analysis of historical developments of accountability

While the North is acknowledged as comprising advanced capitalist states, not all African states have reached this stage of economic development. This is significant because differing stages are characterised by different symbols of accountability.

According to Chen (1975) the religious basis of stewardship was premised on the belief that all things were created by God for use by all humans. If ownership of things and property was required in order to use them, then the human owner must use those property rights to satisfy the needs of society as a whole (Chen 1975, p.534). Chen further argued that social responsibility was the primary stewardship function because the "owner of the property" was the steward of God (p.535). Such an early view embraces a moral geography, and reciprocity in exchange was not expected to be equivalent, nor assumed to be satisfied in financial terms only. Stewardship was an accountability of the human owner to God and to the whole of society. This is a much broader concept of accountability than a mere financial accountability. The stewardship view of accountability is symbolic of a fixed divine social order, and aligns itself with the symbolic or feudal era, portraying an honest or good appearance of a fixed social order.

With the spread and development of capital where trade was for profit as opposed to subsistence, a survival of the fittest mentality emerged along with a concomitant erosion of the social responsibility aspect of stewardship. In other words, managers were primarily morally responsible to owners of business entities rather than to society at large (Chen 1975, p.537). Such a shift narrowed the focus of accountability from a societal view to an entity view, with accountability being initiated and restricted primarily to economic exchanges. The symbolic value of accountability in this circumstance aligns itself with Baudrillard's first order of simulacra, or counterfeit era. The purer symbolism of stewardship is distorted from its reality. Owners of business proxy for the wider community, and in doing so a fake appearance or a perverted representation of accountability to the broader society is represented. The owners of business act as a proxy in a distorted way for representing the interests of broader society.

Social responsibility again became an aspect of stewardship with the expansion of business and an increase in the size of business organisations (Chen 1975, p.538). As business entities

became larger and more complex, management not only had more power, but more responsibility since decisions not only affected owners, but also employees, suppliers, customers and society in general (Chen 1975, p.539). However, such accountability originated in an economic exchange of equivalence, with the underlying assumption that a financial representation of accountability is adequate for society. Such an assumption must be questioned as an adequate form of accountability for global aid relationships, given the allocation of billions of dollars in aid to Africa and the fact that poverty has increased. Such circumstances proffer that there has not been an efficient allocation of resources. In other words, there has been a failure of corporate governance and accountability within the global village.

Bryer (2000a, p.141) and Chiapello (2007, p.275) argue that:

> "as capital becomes increasingly socialised, accounting practices evolve progressively, in accordance with Marx's theory, and double entry bookkeeping not only finally becomes the dominant model, much more importantly is associated with very specific risks for valuing assets and liabilities, so that capitalist profit can be calculated" (Chiapello 2007, p.275).

A watershed moment in the development of the concept of accountability was the introduction of limited liability. The 1855 amendment to the *Joint Stock Companies Act* (Act of Parliament, United Kingdom 1844) made limited liability widely available. This followed the inquiry of the Mercantile Laws Commission of 1854 (Bryer 1997). The introduction of limited liability meant that the onus of accountability was imposed on a separate independent legal entity created by the abstraction of capital by incorporation (Bryer 1997, p.37).

Bryer (1997, p.38) argues that limited liability created a vision for social capital that allowed an "enfranchisement of capital", facilitating a right of association and competition on equal terms or freedom of contract with capital. Bryers (1997) argues that this approach is in sympathy with Marx's critique and the development of the views of Adam Smith. Capital was made "social" by middle classes pooling it in joint stock companies and appointing control to managers, believing this gave an equal return for equal capital. In this way limited liability was seen as an attempt to embrace a vision of social capital.

The symbolic accountability attached to limited liability aligns itself with the third order of simulacra or hyper-reality. The existence of the corporate entity does not resemble any reality. Rather, its image as an artificial person has no real referent. The abstraction of accountability given by the corporate form anticipates accountability by a large number of individual investors.

Accountability to gain legitimacy

Carruthers and Espleland (1991) as cited in Chiapello (2007, p.272) argue that accountability is offered to obtain legitimacy. They suggest that prior to the 15th century external accountability was not generally required as there was no capitalistic mentality, and so there was little need for legitimacy from society. The 15th and 16th centuries saw the rise of double entry bookkeeping in the North, as part of the developments of the Renaissance. In keeping with the sensibilities of the Renaissance, the balancing of debits with credits gave legitimacy from the Aristotelian idea of balance. The rise of double entry gave the image of rationality, and suggested that reference to God was not needed for the legitimacy of accounts as was previously the case. However, this relied on the numeracy and literacy skills of the users of the accounts. This approach demonstrates the production era or "order of sorcery" of

simulacra, because the accounts try to give the appearance of a reality that is absent, that is, to give the appearance of a rational economic representation of a process that also embodies non-rational elements, intrinsic in human nature and decision making.

The watershed developments discussed in this section raise a moral issue of the accountability of the individual investors being limited to their investment. Consistent with Bryer (1997) and Chiapello (2007) the accountability is restricted to economic terms and the creation of profit. This raises the question what societal artefacts (tokens) of accountability are in evidence in the allocation of scarce resources in Africa today? All of the above developments are related to capitalism and ignore non-economic constructs of accountability which are characteristic of lesser developed economies and alternate cultural settings.

Northern accountability and its consequences for Africa

A Northern notion of accountability for invested capital has embedded in it multiple orders of simulacra incumbent upon quantitative symbols of an advanced capitalist position. These are unsympathetic with the alternate symbols of accountability present in an emerging market. Consequently, a vacuum emerges which makes equivalence in transactions meaningless, but which also instigates a position of implied reciprocity (i.e. a simulacrum of reciprocity). In these aid relations advanced capitalist societies interact with less advanced capitalist societies. This creates a crisis of stewardship from the mismatch of accountability needs at different capitalist stages, and as a result different cultural symbolic meanings are construed. Funding pledges and their attached accountability requirements demonstrate the intrinsic complicity of accountability mechanisms in an ideologically biased consumption of accountability symbols.

The cynical catch phrase of the MAKEPOVERTYHISTORY [2] movement: “two, four, six, eight must we really accumulate?” is anathema to both accounting and capitalism as it seeks engagement beyond the solely economic, and is more akin to a broad stewardship view of accountability.

Identifying the public interest has always been controversial. In an era of globalisation and structured societies presenting new levels of complexity it is problematised even further when it has to be determined who is the public? (Cooper et al. 2005). Given advanced technologies, communications and globalised trade alongside very underdeveloped economies, education and technologies in Africa, is accountability at an entity level or organisational level relevant or sufficient? Ontologically, how can an axiomatic normative framework of accountability legitimately operate when it must serve more than one public interest and hence competing interests? Are these public interests competing chronologically or do new technologies make periods of accountability concepts redundant?

Donated monies are accounted for in the same way as invested capital under Northern constructs of accountability because accounts of how donated monies are used is usually construed to be given by the recipients to the donors. This relationship privileges the donors and uses the economic rationalist metaphor of them being the owners of capital. When donors in such a relationship are corporations, they must act in the Northern sense of corporate accountability, privileging the capital providers above public interest. However, there is ample evidence that this approach has not worked to date. The following discussion illustrates the failure of Northern accountability in Africa, in terms of the relationship between corruption and the persistence of poverty in Africa.

The general consensus among African development analysts is that foreign aid to Africa has not been effective. For example, between 1980 and 1988, sub-Saharan Africa received $83 billion in aid (Ayittey 1999). Yet all that aid failed to spur economic growth, arrest Africa's economic atrophy, or promote democracy. Ayittey (13 April, 1999) reported in testimony before the US House Sub-Committee on Africa that:

> The statistics on Africa's postcolonial development record are horrifying. In 1985 more than 100 million of Africa's 700 million people lived in abject poverty. This number rose to 216 million in 1990 and is projected to reach 304 million by the year 2000 …

McAllister et al. (2005) reported on European initiatives to alleviate poverty in Africa, including those prompted by Sir Bob Geldof of Live 8 in consultation with UK Prime Minister and G8 representative, Tony Blair. Ellis (2007) also argued that poverty, especially in underdeveloped countries, has been an international concern since the formation of the United Nations. In spite of more than 50 years of 'concern', little has been achieved.

Ayittey (1999) cites instances of the commitment of foreign aid and loans to "black elephants" (grandiose projects) or projects without economic benefit to the regions to which funds were allocated. The "black elephants" included "basilicas, grandiose monuments, grand conference halls, and show airports" (Ayittey 1999). Other foreign aid "blunders" cited by Ayittey (1999) include silos built in remote locations not visited by peasant farmers (US aid to Senegal), a fully automated modern bakery without flour with which to bake bread (Canadian aid to Tanzania), a banana-boxing plant where the break-even production point exceeded the output of bananas (Italian aid to Somalia), and a fish-freezing plant in a country where goats were raised (Norwegian aid to Turkana).

Such examples come from the power of donors to specify the use and terms of the gifts which are embedded with donor expectations, values, economic motivations and cultural premises. This power is silenced in the financial statements. Accountability needs to move away from donor domination of accountability requirements as a moral imperative. This demands radical social change outside existing market and political structures (Dillard 1991). The following section proposes the alternate framework of gifting theory as informing an accountability framework outside an economic rationalist view.

The idea of the gift

A gifting relationship is established when something in it or of it cannot be reciprocated or paid back. Reciprocity is not essential when a gift is given, such as in the case of a blood donor (Boundas 2001). This is very different to the concept of an exchange or economic transaction. An economic transaction implies equivalence, equilibrium, and reciprocity. In an economic transaction something is given in anticipation of receiving something, for example labour for wages. Such an exchange does not have to be simultaneous but can occur over time and involve more than one person. This is different to a gift because a gift can never be a zero sum game (Boundas 2001).

In an era of globalisation, when accounting and technology are combined, they facilitate an immediate distance relationship between donors and recipients, in which donors are remote from the recipient(s) of their donation and from the consequences of their donations at work. Accountability systems that are used by the donors and imposed on the recipients of the donations allow a reductionism of the gifting relationship to an economic representation, and provide anonymity and distance for the donor. Responsibilities for gifting relationships are subjugated to financial accountability with a premise of reciprocity in the form of

accountability and good governance. This results in an enforced privileging of capitalist concepts of exchange that are embedded in the accounting and accountability calculus over social concepts of giving and the gift. In this way morality in giving is subjugated to a rationalist system of representation. Systems of accounting and accountability, while only able to capture a financial relationship, are substituted as adequate symbolic representations of more complex social gifting relationships.

Boundas (2001) argues that theories of gifts are often confused with theories of exchange. Explanations of exchange from economic rationalist perspectives demand equivalence in the exchange, as is demonstrated in the equilibrium point of supply and demand. This is juxtaposed against the idea of a gift, which relies on disequilibrium in exchange. The assumptions of economic exchange do not hold in a gifting relationship. Ideally, a pure gift occurs when individuals give anonymously, and where there is no possibility for reciprocity from the recipient. Silk (2004) argues that the purest form of the gift is unattainable. For example, even blood donors have a low level expectation of reciprocity in anticipating that blood products will be available for them if they are needed. Derrida (1992) argues that the idea of an altruistic gift assumes a free will and not causality.

It is the identity and values of the owner embedded in the gift (making a gift more than a commodity in exchange) that creates and inscribes a moral geography between donor and recipient (Silk 2004). The ontological assumption underlying these relationships is universalism as compunction for moral motivation. The assumption is altruistic. All humans are entitled to justice in all forms, including economic rights. Silk argues:

> "secular organizations can trace their inspirations for caring back to Enlightenment humanism. This is different to nearest and dearest caring because it is between stranger relationships where donor and carer never meet. This is universalism as a basis for moral motivation" (Silk 2004, p.231).

Boundas (2001) suggests that most gifting is less than its purest altruistic form, proposing that gifting theory assumes that people give because they expect to receive and that people return the gift because they fear others will stop giving. Unlike advanced market exchanges, the whole function optimally operates in a state of disequilibrium. A gift donor relies on the recipient being in debt for the reciprocity. If this is paid back in equivalent value there is no longer a gifting relationship, and so the social relationship unravels and consequently no longer exists (Boundas 2001). Gifts where the donor is dominant in a relationship require lower levels of reciprocity than economic exchange. However, there is often rhetoric of partnership and participation (Silk 2004). This is evident in the following statement from a G8 document at the 2005 summit which states:

> "the fundamental aim of the plan is to mobilize technical and financial assistance so that, by 2010, African partners are able to act more effectively to prevent and resolve violent conflict on the continent, and undertake peace support operations in accordance with the United Nations Charter" (Chapter 1, paragraph 11, G8 Progress report 2005).

Deleuze and Guattari (1977) argue that the circulation of gifts with an expectation of lower levels of reciprocity form the basis of societies that are not advanced capitalist markets. Such a relationship, they argue, is neither based on any value in exchange nor any value in use. Rather, any exchange is valued by both parties as a calculation of risk in crossing the limit of expected reciprocity. For example, if recipients do not reciprocate with adequate accountability and governance as defined by the donor, the gifting relationship will cease. However, if equivalent accountability and corporate governance capability is achieved, the

gifting relationship is no longer needed. While commodities can be exchanged, a gift subsumes the identity of the giver.

Bourdieu (as cited in Silk 2004, p.234) argues that gifts have a political dimension, where any expressions of concern, or acts of generosity, that cannot be repaid set up a permanent asymmetry. Such caring from a distance makes use of intermediaries that institutionalise and perpetuate an asymmetry between the recipients in African states and the donors in the North. Silk argues donor domination means that the donors and their intermediaries have the power to specify the use and terms of gifted resources. This includes control over forms of accountability (Silk 2004, p.235).

A central feature of a gifting relationship is that neither the gift itself is reciprocated equally, nor is donor accountability or donor legitimacy required. "Motivations derived from commercial and political interests predominate … [aid] has been used to further a new liberal agenda of deregulation allied with a drive for improved governance and moves towards the political model of Western liberal democracy" (Silk 2004, p.236). In such relationships the rules and institutional frameworks favour private financial interests that cannot share reciprocity of accountability to the public interest. This causes the perpetuation of the asymmetry. One example of this is contracts that must be placed with firms located in donor countries, termed "boomerang aid". A further example is the acknowledged politicisation and economic consequences of accounting standards (Rappaport 1977; Zeff 1978).

Similarly, Silk (2004) argues that cultural and economic differences offer a critique of the ontological assumption of universalism used to explain gifting. Cultural and economic differences also challenge the ontological singularity of economic rationalism in economic exchanges. Silk (2004) questions whether caring should be based on the similarities or differences between persons? His point is that universal values are axiomatic and normative and as such are determined by the powerful. This is problematic because they impose Northern values. Universalism subjugates indigenous constructions of value. Universalism becomes a representation of differentiations of power. Tvedt (1998, p.225) argues that it is difficult to care for one without invading the other. This is relevant because when we act at a distance, those geographically far away from us are vulnerable to our actions. Such new cross-cultural connections, amplified by technology which enables rapid global communications, demand a new moral accountability which is cognizant of and responsive to particular social and power relations between donors and recipients.

Conclusion

Accountability of the North avoids social responsibility by denying culturally determined legitimate meanings of value other than those constructed from an economic perspective. This paper argues for a distinction between an economic relationship and a gifting relationship between states of different stages of market development.

Accounting and its associated accountability is not neutral and objective in its universal application. Rather it has emerged to privilege the lexicon of economic exchange and is inculcated with assumptions of economic rationalism, demanding equilibrium and reciprocity in value exchanges. Aid, geopolitically situated in advanced capitalist states, must engage on a financial basis that situates the donor in the same position as the investor in the accounting calculus. This basis is ontologically singular and so does not permit sufficient accountability to the recipients and the public interests as would be the case if a wider sense of stewardship was enabled. Mechanisms for accountability are couched in terms of market exchange and

financial constructs of value. Accordingly, such mechanisms do not provide accountability to recipients from donors.

Such a view is premised from the position of owing accountability purely in financial terms to the individual or investor rather than a society. It is embedded within the standard economic rationalist assumptions and contributes little to enhancing gifting relationships across moral geographies. This paper argues for a broader form of stewardship from each party to gifting relationships. The broader concept of stewardship should be designed to better capture qualitative and cultural impacts from the perspectives of both donors and recipients.

A different accountability

The accounting representation should not equate the donor with an investor of capital, as the returns expected have both social and financial characteristics. The donor should not be in the same place in the accounting calculus as the investor. The broader concept of stewardship in line with the symbolic order or feudal era of simulacra is supported. This would mean a use of qualitative social impact statements, including justification for aid projects to avoid the "black elephants" and make the effectiveness of the aid transparent. These impact statements should be both from the donor and the recipient to achieve full disclosure. It is suggested that the equity statement be expanded to differentiate and include a section on social capital investment, including intergenerational investments in social capital. A reciprocity statement should be developed to make visible the difference in power relations resulting from different stages of economic strength and the social relations of any transactions. This makes transparent any self-serving aid of a donor.

The deficiencies of these suggestions are the limited ability to identify and reliably measure social outcomes. These suggestions, while enhancing disclosure, do not solve the problems stemming from differing positions of political power from both the recipient and donor perspectives. The suggestions also rely on considerable technical development.

Northern attributes of accounting and accountability have been critiqued and found wanting from the perspectives of gifting relationships and the public interest. Gifting relationships rely on disequilibrium in exchange and more than quantitative representations of value. All of these concepts are adopted from the perspective of the North and have no ability to capture any qualitative forms of accountability. As such they are simulacra for accountability and good governance but do not engage in an authentic way with those in a donor/recipient relationship. A broader concept of stewardship is forfeited to sustain the disequilibrium and maintain the power of the economic elite.

Notes

1. The 47 countries comprising the continent of Africa are: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Congo DR, Cote d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe.
2. MAKEPOVERTYHISTORY is an international coalition of aid agencies, community groups and celebrities, who run a secular campaign for trade justice and debt forgiveness.

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CHAPTER 17

Utility of virtual communities for 'carers of children with disabilities'

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Keywords
Carers of children with disabilities, disabilities, virtual communities, wiki, culturally and linguistically diverse (CALD) groups.

Abstract
A pilot study of services for children with disabilities conducted in the Illawarra (Noble et al. 2005) identified a basic lack of awareness on the part of parents and carers about available services. In particular, there was a lack of awareness of the availability of different support services, application processes to acquire assistance, information about specific disabilities, and the location of various support services. The study indicated that there was no central source of information for parents and carers of children with a disability in the Illawarra. Instead, parents and carers had to learn about these issues by 'word of mouth', raising issues of information accuracy and timeliness. The study identified a real and pressing need for the creation of a user-friendly 'one-stop shop' for all disability information needs and recommended that a comprehensive online resource be created. Along with information, an online resource would provide the tools to assist in the planning and management of the child's disability over time.

The purpose of this paper is to describe a prototype portal supporting a virtual community that might serve as a one-stop shop for parents and carers of children with disabilities. The potential organisation and utility of this type of virtual community will be described by referring to a model which was developed from the virtual community literature and the needs identified in Noble et al. 2005. The limitations of portal technology to support a virtual community of parents and carers of children with disabilities will also be discussed.

* * * * *

Introduction

Many studies have highlighted the fact that carers of children with disabilities are often the most disadvantaged members of our community who suffer greater levels of financial hardship, emotional trauma and relationship breakdown than the rest of the population. To assist these carers in their daily struggles, numerous non-profit and government organisations provide support in various forms, such as: financial assistance, therapy services, physical goods, and specialist equipment. In particular, many non-profit organisations (NPOs) exist for the sole purpose of meeting the specific needs of a particular disability group, such as Vision Australia and Epilepsy Action. These NPOs rely on government funding, donations, and volunteers to help deliver their services. Their services add significantly to the quality of

life of their clients providing much-needed assistance. While these NPOs focus significantly on service delivery, they struggle in assessing and planning for the needs of their client groups. Many NPOs either lack the requisite research skills to survey their client groups or they cannot justify allocating service delivery funding to conduct such research.

Researchers from the Centre for Social Marketing Research (CSMR) at the University of Wollongong have partnered with the Disability Trust (DT) – a community-based organisation that has provided a range of disability services such as respite care, vocational training, and support groups to the community for over 30 years – and together they have conducted a comprehensive investigation into the needs of children with a disability (aged 0-12) within the local community (Noble et al. 2005). The main purpose of this survey was to hear the "voices" of parents and carers of disabled children in the Illawarra, and to provide insights into areas of concern for this group. Specifically, the survey aimed to determine current and anticipated service needs and the level of awareness of disability services available in the Illawarra (see next section). Discussions with CASR at the University of Wollongong indicated that a number of the needs and service gaps identified in the survey could be addressed by using web-based technology. This paper introduces and exemplifies portal technology which could be used to create a 'one-stop information shop' for a Parents and Carers of Children with Disabilities Virtual Community (see third section). Using an established model of virtual communities developed by Preece (2000), various aspects of the proposed virtual community are described in the fourth section. Preece's model is modified in the fifth section to accommodate the particular requirements of this proposed virtual community. The final section draws conclusions and describes further research.

A snapshot of disability services in the Illawarra

The pilot study of services for children with disabilities (Noble et al. 2005) revealed two significant findings, evident in both the recorded and transcribed speech of various focus groups undertaken at the time of the survey, as well as in the written feedback sections of the survey instrument. The first significant finding was that the lack of government funding for *services* was of great concern to many parents and carers of children with disabilities. There was an urgent need for access to respite care, therapy services, early intervention programs and specialised equipment such as wheelchairs, walkers and communication devices. As a result of under-funding and under-resourcing, there was considerable anecdotal evidence suggesting that this group was disenfranchised:

> 73-Q45 "The services for disability in the Illawarra are fragmented and hidden. Service delivery is done in a bureaucratic and veiled way. Families trying to access services are over taxed and isolated, and often in a position that leaves them with less than average resources – financial, physical and emotional – to discover even what is out there for them. They are made to feel that they are lucky to get what they do. Hence the relationship are [sic] always unbalanced. One of the hardest parts of having a child with disabilities means you loose your independence and your pride as you attempt to keep service providers "on side" for the benefit of your child. This disparate and marginalised group has little opportunity to work together, hence the systems and bureaucracies will always win out."

The second significant finding from the study involves *information* and *communication*. Three related themes were evident in the data: (i) a lack of coordinated information provision and time and emotional costs associated with seeking relevant information; (ii) social

isolation and the need for empathy; and (iii) uncertainty regarding a child's future. Many parents are overwhelmed by their situation as they do not have the opportunity to research into the disabilities they find themselves dealing with on a day-to-day basis, and they cannot easily find support services and information:

> 52-Q17 "I don't know what I need to know"

Both the disenfranchisement and the lack of knowledge about support services could be addressed with the provision of timely and appropriate information. Not surprisingly this was suggested by a number of respondents:

> 62-Q45 "As I had no information given to me when my child was diagnosed with having an ASD. I am hoping an information booklet with information and contacts is available to families when needed. This is very important and I can't stress enough, that a booklet would have helped me enormously and would have taken a lot of stress out at that time. The booklet or any information for that matter needs to be given out from the first initial diagnosis."

At the same time, many of these services are discovered in an ad-hoc fashion, and the manner in which this happens (through small social networks) is clearly described by the following response:

> 179-Q45 "… We access many services in the Illawarra. Some we have been referred to by doctors/health professionals, others by and Non Gov't agencies, others we found out about ourselves or through other parents of children with disabilities. Having one central person to disseminate info I feel would be beneficial but then I'm not sure one person can know everything. It was for eg, thru another parent I met in hospital (who had a severely disabled child) who informed me that I was probably entitled to a Part Carer's Pension. Even though I was receiving the Carer's Allowance at the time (my Community Worker informed me of this), I just assumed that because my husband was working we were not entitled to any sort of a pension. But this was not the case. I made some enquiries and now receive a Part Carer's Pension and the benefits that go with it, thanks to that parent. I think the Carer's Allowance is well understood among Disability Services but the Carer's Pension and its eligibility criteria for parents with children with disabilities I'm not sure is quite so well understood (but I can only speak of my own experience). Maybe others are missing out on an important support."

Clearly a mechanism needs to be in place whereby the existence of these services can be shared with others so that if a serendipitous discovery is made then others can benefit from it. Timely and appropriate information could be provided and organised in such a way as to be useful for parents and carers of children with disabilities. One of the major findings of CASM's study (Noble et al 2005, p.10) was the recommendation that a web-based system be funded "… to enhance access by all stakeholders to accurate, reliable and up-to-date information that could assist in the provision of support and care to children with disabilities, [and that this would] follow a model of family and carer empowerment and be set up and maintained in consultation with, and involving, families and carers". This recommendation describes a website but in fact what is required is a portal to support a virtual community.

Virtual communities and portals

Online communities or *virtual communities* are similar in several ways to physical communities in that they are groups with common interests, shared goals, activities, and governance, comprising individuals who cooperate to share resources and satisfy each other's needs. While the concept of a virtual community is not hard to understand, it is difficult to define – but it is certainly not defined or circumscribed by any particular type of technology. According to Preece (2000, p.10) an online community consists of:

- people who interact socially as they strive to satisfy their own needs or perform special roles, such as leading or moderating
- a shared purpose, such as an interest, need, information exchange, or service that provides a reason for the community
- policies in the form of tacit assumptions, rituals, protocols, rules, and laws that guide people's interactions
- computer systems to support and mediate social interaction and facilitate a sense of togetherness.

The advantages of this definition are that it is sufficiently general to apply to a range of different communities (including physical communities that have been networked), while being general enough to include communities supported by a range of different technologies, such as single bulletin boards, list servers or chat software (including those embedded in websites), and as game-oriented technologies where players can form communities. Preece's definition also has the advantage of enabling operational decisions to be made in regard to developing technologies for virtual communities. Often the technology of choice for supporting virtual communities is called a *portal*. Portals were so named because they were the entry point (doorway) to the Internet for those groups they supported. The goal of portals is to aggregate as much media about a domain of interest in one place as is possible – a clearinghouse – so that people will go to this portal first when they are interested in something. In commercial uses dating from the late 1990s, portals started to sell advertising to support their sites and generate revenue. Portals became popular for some major retailers who would attract customers away from other portals by providing cut-price discounts on purchases made through their portals. Portals also have been used to support other kinds of virtual communities, including communities of practice associated with specialist uses, for example portals have been used to support distributed research groups. Regardless of the type of virtual community, portal technologies are readily available, so the crucial questions become: how do you identify the needs of a specific type of virtual community? and which technological and sociological aspects need to be identified and studied? To do this we examine the literature, and in particular a model of virtual community building which was developed by Preece (2000) and which we describe in the next section. We modify this model later in the paper based on the assessed needs of our virtual community.

Unpacking Preece's (2000) model of a virtual community

You can build a portal, but the virtual community may not come. In both this section and the following one, we critically discuss several issues that must be faced when developing, supporting and fostering virtual communities regardless of which technologies are employed and how they are built. As a point of departure we use an established model of virtual community building developed by Preece (2000), an overview of which is described in this section. A special emphasis is placed on several aspects of particular importance for virtual communities that may be developed to support parents and carers of children with disabilities.

Preece's (2000) model of the virtual community involves an iterative model of assessing community needs, designing usability, planning sociability, and supporting the evolving community. Preece's model first demands that an analysis be undertaken to determine the needs of the community to be supported by a portal. This analysis feeds the next two stages, which are called 'Design Usability' and 'Plan Sociability', and which mutually influence each other and are performed in parallel to support the evolving community. The term 'usability' refers to the study and practice of ensuring that interactive technologies are easy to learn, efficient and effective to use, and provide the desired range of relevant functions for their intended users. Within the 'Design Usability' stage are categories that include interaction dialogue design, navigation, registration forms, feedback, user representations, message formats, archives and support tools. In portal development environments, many of these choices are already pre-determined. It would require much higher order scripting skills to develop new modules that implement new functionality – such as alternate dialogue designs – than the skills that are required to select existing modules and configure them into the existing portal framework using default settings. In reality people who want to quickly set up a portal for a virtual community using available environments tend to adopt default and relatively risk-free settings and themes (aesthetics of the interface) and then they will tend to live with them once the portal is up and running. The situation is a little different with commercial environments that can be used to develop portals, for example Atlassian Confluence (Clarke 2007). We might expect in this case to have a more robust means of changing the look and feel of the environment, although commercial environments often achieve improved product stability by restricting what may be added to them or not.

The term 'sociability' is a neologism that refers to those features that need to be considered when trying to create and sustain a virtual community. Within the 'Plan Sociability' stage of Preece's (2000) virtual community model are categories that include determining who are the anticipated and unanticipated audiences- – and therefore who will count as a member of the virtual community and who will not – and also the code of conduct which is expected of members. Planning sociability also raises issues surrounding security, privacy, copyright, and freedom of speech, some of which also touch on legal issues, such as defamation. This stage also considers the question of who will act as a moderator and what kind of moderation strategy will be applied to information posted on the portal. The model connects usability and sociability stages to show that decisions made in one will affect the other. In other words the choices we make about usability will influence sociability and vice versa.

Modified virtual community model for parents and carers of children with disabilities

In the previous section we introduced Preece's model of virtual communities and discussed in depth some aspects of it emphasising its key parallel stages of 'Design Usability' and 'Plan Sociability'. In this section we significantly modify this model by including a stage between the Usability and Sociability stages and prior to the 'Support Evolving Community' stage. This new additional stage takes into consideration the previously described findings in our survey (Nobel et al. 2005). This stage consists of issues classified into three categories: Services, Information and Collaboration. The modified virtual community model is shown in Figure 1. The additional stage includes services, information, and collaboration in a dashed box, while all of the other stages are as per Preece's (2000) original model.

The different types of *services* include those recognised in the original 2005 survey instrument (Noble et al. 2005) and include support groups, service coordination, respite care, in-home personal care, domestic support, home modifications, equipment/personal care,

transport services, therapy services and recreation/leisure. Different types of *information* resources include medical and remedial, online resources (aggregation), disability policy, child assessment, pension information, resource locators and school locations. The last category is referred to as resources for *collaboration* and this involves engaging the mainstream, policy development, lobbying, service coalition, and the provision of external content for the virtual community. We discuss three of these categories more fully: Bringing external content into the virtual community; Seeking a broader coalition of services; and Connecting with the mainstream.

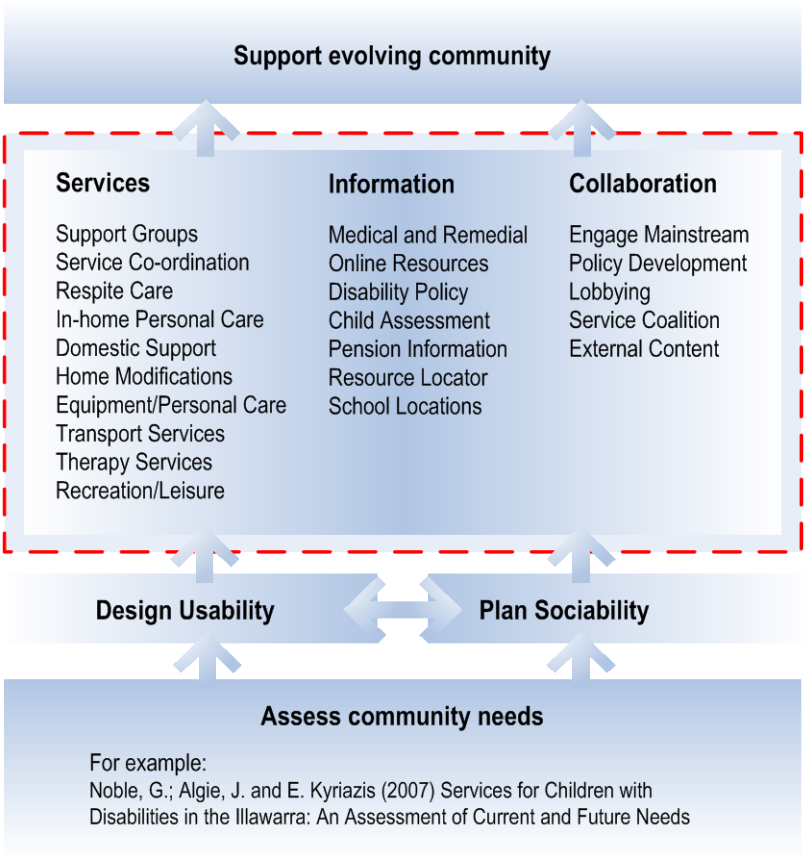

Figure 1: **Model of a virtual community for parents and carers of children with disabilities, modified after Preece (2000).**

Bringing external content into the virtual community

While we anticipate that a 'one-stop' virtual community could provide real support for parents of children with disabilities (including uses that we have not and cannot foresee, the reality is that the utility of this technology will be judged on its ability to acquire and host information from government agencies and non-government organisations. A range of technical options exist in order to determine if new material has been posted on websites, to acquire this information, and to make it available on the virtual community.

One technical option is using and/or creating programs called *spiders* (or web robots, webbots or simply bots) that visit websites and read pages and other information, in order to index the existence of this information for later use by search engines. Another closely related technical option is collectively referred to as *scraping* (or screen scraping). It involves running scripts that periodically access pages on external websites, comparing these with previous accesses to determine if the contents have changed, and downloading new material for potential use on another site. Scraping is distinct from parsing in that the former deals

with output intended for display to an end user rather than to a program. As a consequence, scraping can be 'hit and miss', as scripts have to be insensitive to changes in things like page layout and formatting. Because of this, scraping is often thought of as a technique of 'last resort'. However, there is a growing body of open source scripts and programs for performing sophisticated webpage parsing, comparison, and extraction of information (see for example Hemenway & Calishain 2003). These techniques are rapidly moving into mainstream management practice as part of non-traditional online marketing approaches (Schrenk 2007). Using these techniques, a virtual community for parents of children with disabilities might scrape content buried deep within government websites, enabling it to be exposed and reused on a virtual community site. There are a range of technical, copyright, and ethical issues that surround this type of information capture, not the least of which is that the content needs to be maintained at two sites.

If we exclude content scraping as an option for acquiring content from other sites then there are other options, all of which involve collaboration between parties – the agencies that create the content and the portal that will use it. One way is for the creating agency to allow external agencies – like the portal community – to access their internal systems using so-called *Application Programmers Interfaces (API)*. This still requires creating scripts at the virtual community end to utilise the fetching of information using the API. The resulting scripts are usually language-dependent and require specific technical skills. Alternatively, *database dump* from the content creator to the portal can be negotiated on a routine basis but this is also not without its difficulties since databases need to be converted at both ends and this still does not eliminate the problem of multiple data formats.

A much better way of exchanging information between agencies is by using *RSS*, which stands alternatively for RDF Site Summary, Rich Site Summary, or Really Simple Syndication (Hammersley 2003). RSS standardises a format for the delivery of content and sharing of information between sites. It makes it easy for the content provider to distribute content, and for affiliates to receive and process content from multiple sources. In most cases headlines about the content are distributed rather than the content itself, so that users will go back to the affiliate site if they are interested in the information or resource. This means that there are no revision control problems, and users will acquire the most up-to-date versions of the information or resource. The term for sharing information between sites is called *syndication*. This term is borrowed from licensing content like TV reruns and newspaper columns. Affiliated networks and partners that host similar content can agree to harvest each other's RSS feeds and automatically display new stories on each other's sites. In a community of related websites (an affiliate network) each site specialises in its own specific area of interest. Readership is maximised when sites cross-promote each other. At times one affiliate may carry content that directly relates to another site's readership. Collocation of content is the web equivalent of having similar types of shops in the same area of the city! RSS feeds are the best way of sharing agreed content between sites, and involve several steps. Once the RSS content is written and before it is syndicated, the RSS file needs to be up-to-date. Individual RSS files may be manually added, or preferably automatically appended as a new post to the RSS file. Once the RSS file exists, any other site can grab it regularly. Displaying an RSS file on a website usually involves converting it to HTML. By using a Server Side Include (SSI), the server can bring the content into a template, and a Cascading Style Sheet is used to style the output to match the formatting of the website. Websites should create an information page about syndicating their headlines which makes existing users aware that the website has an *RSS feed* so that they can add it to their news reading applications or even include it on their own websites. A convention that is emerging

on many websites is to use either the RSS or XML logos to link to the RSS XML for the current page.

Sites that integrate and collect together thematically related content are called *aggregators*. Aggregators automatically search for and process RSS files from content providers and present news in a variety of ways. Current examples of aggregators include *Bloglines*, *Google Reader* and *Blogs.com*, all of which aggregate currently available technical RSS feeds, and filter news stories by time, topic, keyword and regular expression. Other commercial examples include *Motley Fool*, *Wired News* and *Slashdot*. Some of the proposed portal functionality for parents of children with disabilities will be aggregator functionality.

Seeking a broader coalition of services

It is an axiom of modern management that the problems pertaining to a system often lie outside the system, and in order to understand the functioning of any system you need to look at the larger system that contains the one of interest. This kind of synthetic thinking (pioneered by Ackoff 2003) reveals the core issue with a virtual community for supporting parents of children with disabilities that cannot be solved with technical options like *spidering* and *scraping*. Conversely, we recognise that all hyper-systems are becoming increasingly interdependent, in that many sites rely upon content that originates elsewhere. This content may include news feeds, events listings, project updates and exchanges of information. Like businesses seeing opportunities to share content, the success of a portal for parents of children with disabilities requires content sources to be on government websites, and thus the best long-term solution will be to enter into agreements to share this information more formally, rather than simply scraping it from government sites. This leads us to the issue of seeking a broader coalition of services – that the portal may be the lightning rod around which these broader coalitions of government and non-government providers may be formed.

Connecting with the mainstream

Establishing a virtual community enables the possibility for the mainstream to become more aware of the issues faced by those who care for the disabled in our community. When asked about the needs of the carer and the facility (Noble et al. 2005, p.10), one respondent provided the following succinct response (52-Q11):

1. More Sibling Groups Needed
2. More Counselling Needed
3. More Community Awareness Needed OR More Community Education Needed as far as Disabilities go.

A portal for parents of children with disabilities provides opportunities to educate the broader community. More importantly it provides the opportunity for the mainstream community to engage with parents of children with disabilities. A simple example of this might be *virtual community service* to discover and describe online information sources that might be of interest to particular communities. Volunteers could sign up to do internet searching on particular topics, or on behalf of various communities, and these searches would then be rated by experts, such as representatives from medicine, community support or members of either government or non-government agencies that provide or disseminate information. Once information was published on the portal, parents could rank this information as either useful or not useful. Many users of the Internet are familiar with the idea of rating items on websites, for example those found on Amazon. These rankings form information utility

measures which can be used to direct subsequent volunteer internet search activities. A model for this type of virtual community service is currently being developed within the Faculty of Commerce at the University of Wollongong.

Conclusions and further research

We are certainly mindful of not advocating a technologically determinist position by claiming that a portal-supported virtual community will solve all of the problems facing parents and carers of disabled children. Hopefully a virtual community will provide a mechanism to enable parents to talk together and to acquire and exchange information and experiences. We would certainly hope that it would become a 'one-stop shop', since it is not subject to the physical constraints of actual educational facilities, medical, rehabilitation and respite centres. There are two sets of questions that need consideration during the development of a portal for these purposes. The first set of questions relate to access and equity, the second relates to development practices.

Questions of access and equity

The first issue that arises is an issue of equity: how to acquire the necessary technology that will enable parents and carers of children with disabilities to gain access to the proposed virtual community. Noble et al 2005 indicated real financial stresses endured by parents whose available disposable income is generally directed towards providing equipment for more immediate medical and remediation needs. 60% of families of children with a disability earned less than $60,000 annually. In addition, Australians have been paying top dollar for access to the Internet which is by international standards a slow and poor service. Additionally, Australia's Telecommunication Policy has been in disarray for more than a decade. The recently promised roll-out of broadband to the home – rather than just to the node – by the current Australian Federal Government appears to hold the promise of eventually lowering the barriers to accessing the World Wide Web. While there does not appear to be any programs proposed to assist parents and carers of children with disabilities in acquiring internet access directly, the Digital Education Revolution Initiative (2010) and its support for the "One Laptop Per Child (OLPC) project" (Rudd 2010; OLPC 2010) will significantly assist in lowering the barriers to access. These measures will lower the cost of access to the type of virtual community that we envisage.

The 2005 Illawarra Pilot Study also showed that approximately a third of carers of children with disabilities had only a basic education (technical college qualifications or School Certificate). Also 21% of survey responders were from Culturally and Linguistically Diverse (CALD) Groups, and therefore no single solution will solve these particular access needs. There has been considerable research into the so-called *digital divide* that includes the social factors that inhibit access to information technology and the web and which exacerbate social inequality and exclusion (Cherry, Goldstein and Cass 2004). Not surprisingly these factors include low income, unemployment, gender (fewer women use the internet and are often in lower-skilled jobs), age (less technically savvy), location (rural and remote communities have less access due to distance from services) and poor English skills. The difficulties in accessing the type of virtual community we envisage will require considerable study, although precedents do exist and these approaches need to be researched and applied.

Questions of development practices

The second issue is an equally important one, going to the heart of the empowerment and inclusion that parents and carers of children with disabilities should have in the development of this type of portal site. We advocate the position that the experience and expertise of

parents of children with disabilities deserves the respect and full attention of researchers and decision-makers. Beliefs about the transparency of language are built into traditional approaches to website and computer-mediated communication design (see for example Mok 1996), and even in the growing literature on web internationalisation and localisation. The reason why IT professionals can consider language this way is because their perspectives and practices are asemantic.

Before we can support and serve parents and carers of children with disabilities, we need to understand what they are communicating to us, by understanding the nature of the communication itself. In other words, knowing the resources used in communication will help us to understand the communication of those that require services for disabled children. Developing a useful virtual community using communication techniques is possible if these techniques enable a detailed semantic analysis of the communication provided by parents and carers. The type of semantic analysis that we advocate is not found in information systems or computing science but rather in the fields of socio-linguistics and semiotics. Future research will involve the development of novel techniques to organise the resulting content in ways that provide value to parents and carers of children with disabilities, by organising it in ways that they themselves might use, and by seeking these out. In doing so, we will need new techniques that empower and engage parents and carers of children with disabilities by using their communication to structure content on the portal.

Acknowledgements
The authors wish to thank The Disability Trust and all of the families and carers who took time to complete and return the original surveys and participate in the focus groups. The authors also acknowledge the UK Engineering and Physical Sciences Research Council Project (EPSRC GR/R57782) for funding the *Semiotic Enterprise Design for IT Applications* (SEDITA) project (2002-2005) and the OrgSem Portal, a deliverable of this grant.

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SECTION V

ENVIRONMENT AND RIGHTS

CHAPTER 18

Uses of the albatross: threatened species and sustainability

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Keywords
threatened species; albatross; use value; cultural attitudes; sustainability; tourism

Abstract
Since first encounters with albatrosses in the early modern period, western cultures have reacted with amazement and wonder at the birds' flight, while taking a more pragmatic attitude towards them as creatures whose worth can be measured in their use value. In 19th and early 20th century western discourse the birds featured as objects of sport, as saviours of various kinds – whether as food for hungry sailors or victims of shipwreck in the southern oceans, as messengers, or as lifebuoys – as well as predators, and as objects to be collected for scientific inquiry. In non-western traditions, such as the Maori of New Zealand, albatrosses also had a use value, but it was of a different nature. As human societies have changed – in terms of the view of what constitutes use value, or in terms of advances in material culture, or extensions of practices of harvesting ocean resources – so too have attitudes towards the birds, although these are still based on use value. Today albatrosses have become icons of conservation movements, and are protected by legislation and international treaties. While this may appease those concerned about our relationship with the oceanic environment and our responsibilities towards it, and hence provide a form of comfort and personal well-being, a more fundamental rethink of our relationship with the natural world represented by these birds is required. Their iconic status is part of the reason for increased tourism in the southern oceans, which brings new threats to their existence. A way of engaging with them that moves away from seeing them in terms of use value will help to achieve a more sustainable relationship between humans and the environment with valuable consequences for the well-being of both humans and birds.

* * * * *

Introduction

> During this storme, certaine great fowles, as big as Swannes, soared about vs, and the winde calming, setled themselues in the Sea, and fed vpon the sweepings of our Ship; which I perceiving, and desirous to see of them, because they seemed farre greater then in truth they were, I caused a hooke and lyne to be brought me; and with a peece of a Pilchard I bayted the hook, & a foot from it, tyed a peece of corke, that it might not sinke deepe, and threw it into the Sea, which, our ship driving with the Sea, in a little time was a good space from vs, and one of the Fowles being hungry, presently seized vpon it, and the hooke in his vpper beake …

> By the same manner of Fishing, we caught so many of them, as refreshed and recreated all my people for that day. Their bodies were great, but of little flesh and tender; in taste answerable to the food whereon they feed …
> [F]rom the poynt of one wing, to the poynt of the other, both stretched out, was aboue two fathomes (Hawkins 1970, pp.71-72).

The first encounters between Europeans and albatrosses in the early modern period must have been something like what Sir Richard Hawkins reports of his experience with these birds off southern South America in early 1594. Of those mariners whose accounts of their voyages survive, comments on the size of the birds and their powers of flight form a constant refrain. It was a source of continual amazement that these birds could be unaffected by the severe weather conditions of the Southern Oceans, being able to keep aloft with minimal effort and fly into the wind in a way that no European ship of the period could do. Peter Mundy (1967, vol.5, p.35), who met the birds in the South Atlantic in June 1655, notes their "extraordinary large size," and remarks how

> [i]t maketh mee wonder how these and others [fly] with continuall steaddy outtstretched wings, nott seeming to us to moove them att all in a long space, as wee see hawkes and kites to soare aloft: some allead[g]ing the depth of aire supports them, butt these flew close to the water and never farre from it."

While the birds were a source of wonder, the instincts of the sailors drove them, nevertheless, to assess these unfamiliar creatures in terms of their use value, and thus the birds Hawkins and his men caught finished up in the pot. Such attitudes are deeply ingrained in the western tradition of human relationships with the environment. In this paper I will give an historical overview of the way in which both western and non-western cultures have treated this group of birds. I will do this by examining representative examples of this treatment, and show that in both western and non-western cultures the treatment of albatrosses has been based on the use value of the bird to those human cultures. I will argue that, despite changes in human societies and attitudes to the birds, including what they represent, they are still measured in terms of their use value, but that circumstances are such today that it is incumbent upon us to engage in a fundamental rethinking of our relationship with the natural world represented by these birds. Such a rethinking may help to achieve a more sustained relationship between humans and the environment, with valuable consequences for the well-being of both humans and birds.

European attitudes towards and treatment of albatrosses from the 17th to the 19th century

The unfamiliar birds which those first European adventurers encountered in Southern Hemisphere waters are known in English as albatrosses or sometimes, in the case of some of the smaller members, as mollymawks. In the early literature they are referred to in terms of birds familiar to Europeans, such as "extreame great Sea-Mewes [sea gulls]" (Schouten 1619, p.22), or, using a word which derives from the Portuguese for *pelican*, as "Alcatrazes" (Mundy 1967, vol.3, part 2, p.359) or "Algatrosses" (Dampier 1697-1703, vol.1, p.531). The birds were known to sailors travelling in southern waters, but not to others. Linnaeus published the first formal scientific description of an albatross in 1758, though he had no direct experience of the species, relying instead on the descriptions and illustrations published by others (Linnaeus 1758-59, vol.1, p.132). But it was not until the three expeditions of exploration led by Captain James Cook in the latter part of the 18th century that European

science began to become more familiar with the large seabird characteristic of the open oceans of the Southern Hemisphere.

Europeans in general gradually came to know albatrosses as the 19th century progressed. For English speakers and lovers of literature, Samuel Taylor Coleridge's poem (2001, vol.1, part 1, pp.365-419), "The Rime of the Ancient Mariner," first published in 1798, became so well-known in the years after its publication that an incident in the narrative of the poem passed into common speech and the albatross became identified with a heavy and unwanted burden (*Oxford English Dictionary* 1989, "Albatross" sense 2b). As the century progressed and immigrant and trading ships began regular voyages to and from Australia and New Zealand, the birds became part of the experience of travelling in the windy latitudes of the Southern Ocean.

It is worth investigating some of the ways in which this bird featured in western discourse of the 19th and early 20th centuries, since this will throw some light on how it was regarded. As might be expected, the bird was treated in a wide variety of ways.

For some it remained, as it did to the mariners of earlier periods, an object of awe and wonder. When Louisa Meredith (1973, p.26) saw one during a passage to Australia in 1839 she wrote that the "great white albatross (*Diomedia exulans)* fully realized all my ideas of its grandeur and solemnity" and described it as a "melancholy, grave, and most majestic bird." Alfred Fell (1926, p.55), who sailed to New Zealand in 1841-42, called it "a noble looking bird." But it was the novelist, Herman Melville (1963, vol.1, pp.236-237n), who reports the most extreme reaction. He had worked on a whaling ship on a voyage from New England to the South Pacific in 1841-42 and describes the first albatross he saw as "a regal, feathery thing of unspotted whiteness" before which, "[a]s Abraham before the angels, I bowed myself." For some voyagers the appearance of an albatross indicated that they had now entered unfamiliar southern waters (e.g. Guillemard 1887, p.iv), or it provided a mark of proximity to a particular location, such as the Cape of Good Hope.

But for many people, the birds were valued for much more pragmatic reasons. From the time of Richard Hawkins onward, albatrosses were caught by a variety of means. Shooting the birds with firearms for sport was a popular activity in the 19th century. Members of the French expedition led by Nicolas Baudin (2004, p.82) enjoyed this in the southern Atlantic in January 1801: "We amused ourselves by firing at several of them, but did not hit one, although they were well within range." On the emigrant ships it seems to have been a very common diversion to shoot at the birds following the ship. Louisa Meredith (1973, p.25) laments that "[e]very one possessed of a gun, powder, and shot aids in the slaughter, or at least does his worst." James Froude (1886, p.67) noted that on his ship in 1884-85, when albatrosses approached, the "passengers' chief anxiety was to shoot [them]." Such birds, if hit, could not be retrieved from a sailing vessel, and this wanton destruction sometimes occasioned debates among the passengers as to the merits of the activity. Alfred Fell (1926, p.55) gives an idea of how the debate might have been framed:

> We had an interesting discussion at lunch, whether it was justifiable to shoot these birds merely for wantonness and amusement, when it is impossible to reach them after they are dead. I had only Mr. Otterson and Mr. Barnicoat on my side of the question, so it was agreed by the sportsmen that they were justified to continue the sport if only for practice.

Froude (1886, p.67) muses on the motivation for such behaviour, declaring that it arises from "some combination of motives difficult to analyse".

Whether birds were obtained by fishing à la Richard Hawkins or by shooting, they were put to a variety of uses. Many writers commented on the tastiness of albatross flesh, with James Cook (1955-67, vol.2, p.52) noting in 1772 that it "were not thought dispiseable food even at a time when all hands were served fresh Mutton." Sometimes birds were a source of eggs; James Harry writes in his journal of shooting birds in the Southern Ocean in 1853 "for the eggs contained in them" (NSL: Harry; zA2047; p.107). Their body parts had a variety of uses as enumerated by JF Green (1887, p.9):

> Everyone knows the final uses the specimen may then be put to. Its webbed feet make capital tobacco-pouches … The wing-bones make excellent pipe-stems; the breast …a warm though somewhat conspicuous muff; and the beak, in the hands of a skilled artificer, a handsome paper-clip."

At their nesting places, such as Albatross Island off northwest Tasmania, birds were killed for their feathers which were then used for stuffing mattresses (Backhouse 1967, p.102; Robinson 1966, pp.663-67).

In some circumstances they were regarded as saviours. To the crew and passengers of the *Strathmore,* wrecked on the Crozet Islands in 1875, albatrosses provided food, fuel, clothes, shoes and soap (Turner 1878). To the French sailors wrecked on the same islands in 1887, an albatross offered the possibility of salvation in that they attached a message to it in the hope that this might lead to their rescue. The bird and message turned up in Western Australia but the sailors seem to have perished trying to sail from one island to another (*West Australian,* 20 Sept. 1887, p.3; 27 & 28 March 1888, p.3; 6 Sept. 1888, p.3). For one seaman who fell overboard in the Southern Ocean in 1881, an albatross which came to investigate proved to be a literal saviour. The resourceful sailor seized and drowned the bird, then clung to it, using it as a lifebuoy until rescued (*Sydney Morning Herald,* 24 Nov. 1881, p.5).

Finally, they were useful to westerners as objects of scientific inquiry, at least since the time of the Cook expeditions. Usually this meant the birds had to be killed. After the scientists had conducted their investigations, the flesh of the birds obtained on the Cook expeditions was eaten. A century later, an English collector, Thomas Parkin (NUS: Parkin; Allen E. Bax Collection; Log), amassed enough specimens during a round trip from England to Australia that he was able to establish his own private museum of stuffed birds.

Maori and Moriori attitudes towards and treatment of albatrosses up to the 19th century

Since albatrosses, for the most part, breed on remote islands and forage in open oceans, they did not generally come into close contact with humans across their worldwide range in pre-modern times. It was only in the North and South Pacific that birds played a part in indigenous cultures, so it will be useful for the purposes of this paper to examine the use and value of the birds in one Pacific indigenous culture which was very familiar with them. This was in New Zealand, where they played a significant part in the lives of the Maori of the main islands and especially the Moriori of the Chatham Islands.

Members of Cook's expeditions reported that albatross meat formed part of the Maori diet and pieces of down were worn as ear decorations (Banks 1962, entry after 30 March 1770;

Forster 1982, vol.2, p.249). Highly-prized feathers were used in the hair as a mark of rank and to decorate canoes and kites, while breast down was also used to make capes. The bones were used for tools of various kinds, as ornaments or to make musical instruments (Orbell 2003, pp.165-67). Oil obtained from the bird was drunk as a remedy for coughs and colds and rubbed on joints to ease rheumatism (Riddell 2003, p.19). The value of parts of the bird, such as its feathers, was determined by the difficulty of obtaining them and their consequential scarcity, since birds had to be caught at sea by hook and line (Orbell 2003, pp.165-67), as they did not nest on the main islands.

Their role in myth is a further indication of their importance in Maori culture. In stories told by Maori residents on the East Coast of the North Island, the ancestor Pourangahua returned to the ancestral home, Hawaiki, in the Pacific, and brought back *kūmara* (sweet potato). The *tāniko* weaving pattern known as *roimata toroa* 'albatross tears' comes from a version of this story – two birds brought Pourangahua back home, but one died as a result of his ill treatment of them and the second shed tears of anguish on its return to Hawaiiki ('The Story of the Kumera', n.d.; Riley 2001, p.47). Another story of the origin of this pattern refers to a party of hunters coming to an albatross colony in the Bay of Plenty (Riley 2001, p.47). In proverbial sayings in the Maori language, the birds were used in metaphorical references to a daughter, a young man or a war party (Riley 2001, p.45).

On the Chatham Islands, albatross meat was a staple of the Moriori diet (Riley 2001, p.48). The birds nested on offshore islets which were difficult to access, requiring dangerous ocean voyages of up to seventy kilometres in wash-through canoes (King 1989, p.31). The albatross was among the motifs Moriori carved in the bark of *Kopi* trees (Karaka *Corynocarpus laevigatus*) and on limestone walls alongside Te Whanga lagoon on Chatham Island. On these islands the feathers had a similar high value as on the mainland, but they appear to have had a special significance, marking the followers of Nunuku, who was traditionally credited with ending the lethal combat within and between Moriori groups (King 1989, pp.27-28).

After the Maori invasion of the Chatham Islands in the 1830s, albatross feathers and meat were exported back to that part of the North Island where the invaders originated. The birds' feathers took on an extra significance in the 19th century, being adopted by the Parihaka prophets, Te Whiti O Rongomai and Tohu Kakahi, as the emblem of pacifist resistance to Pakeha encroachments on Maori land (Keenan 2007). This emblem, the *raukura*, consisting of one to three white feathers from the underwing of the albatross (Gadd 1966; Keenan 2007), was widely worn by Maori adherents of the teachings and political position of Te Whiti, as well as by sympathetic Pakeha, such as William Baucke (1928, p.191).

It will be evident from this brief summary that some attitudes to albatrosses were shared across European and Maori/Moriori cultures. The birds were valued as sources of food, feathers and body parts, and their influence on language and mythology demonstrates their culturally important role. In the English speaking world the notion that killing an albatross brought bad luck seems to derive from Coleridge's poem, but an attitude shared by European and Maori culture was a deeply-felt recognition of the birds' mastery of the elements. That European view is evident in any number of 19th century accounts of voyages into the Southern Ocean, where the writers comment on the ease of the birds' flight in conditions which severely affected ships, while the Maori view is implied in the use of feathers to decorate canoes to assist the occupants in mastering conditions on the water. The notion of the birds as saviours may have be present in that culture, but it is more characteristic of a people who are entering an unfamiliar environment, like 19th century Europeans. Where the

cultures differ is in the European habit of killing birds for sport or, in very much smaller numbers, for scientific inquiry. But both cultures base most of their attitudes on the use value of the birds and recognition of similar attributes.

Exploitation of albatrosses – expansion and rationale

In the 19th and 20th centuries there were significant changes in the relationships between humans and albatrosses. Some of these were a result of the availability of more advanced technology producing more severe human impacts on the birds. It had often been acknowledged that the albatross down was so thick that it gave the birds protection, not just from the cold, but also from bullets and shot from European weaponry. Joseph Banks commented on the need to be near the bird in order for a shot to have a fatal effect (Banks 1962, entry for 6 Jan. 1770) and Nicolas Baudin noted several times in 1801 how difficult it was to achieve a kill, including one incident when it took four shots to kill the one bird (Baudin 2004, pp.82, 91, 96). Comments of this kind ceased as firearms improved. In New Zealand better technology in the form of sailing vessels and rowing boats, brought by Maori to the Chatham Islands, allowed an increase in the kill of albatrosses on the formerly difficult-to-access breeding islands (Robertson 1991, p.8).

In other cases, however, it was not so much improvements in material culture but the prevalence of certain widespread attitudes to the natural world which produced major consequences for albatrosses. In the Judeo-Christian world these attitudes can be traced back to the Christian Bible (1897), where Adam is given "dominion", i.e. power, over the natural world, including "the fowl of the air" (Genesis ch.1, verse 26). It is a short step from being giving controlling power to the notion that it is right and proper for humans to exploit natural resources which have been provided for their benefit, like trees and plants (Genesis ch.1, verse 29). As European power expanded beyond the confines of their continent, this exploitative attitude accompanied them. Albatrosses were no less subject to the consequences of this than any other animal which could be used by humans.

Albatross exploitation on a massive scale rapidly expanded around those areas of the world where they could be found. In Tasmania, populations of Shy Albatross in Bass Strait were almost annihilated by the 1890s, while colonies of other albatross species on Macquarie Island, South Georgia and Tristan da Cunha were either extirpated or severely reduced in the late 19th or early 20th century (Robertson 1991, pp.12-13). Such depredation did not derive solely from the Judeo-Christian tradition, since it was not confined to westerners. Short-tailed Albatrosses in the North Pacific were nearly wiped out by the 1930s by Japanese feather collectors, especially on the birds' main island breeding colony, Torishima (Safina 2002, pp.181-88). The massive exploitation of Laysan Albatrosses, also in the North Pacific, was conducted by both Japanese and American interests (Safina 2002, pp.147-52).

The consequences of such exploitation were obvious and always had been. Even in the Bible (1897) there were warnings against over-exploitation of nesting birds, specifically a requirement that parent birds were not to be taken (Deuteronomy, ch.22, verses 6-7). For people who had a longer familiarity with and higher dependence on the resources that albatrosses provided, there were correspondingly stricter restraints on the exploitation of the birds. Thus on the Chatham Islands restrictions on harvesting meant that it was forbidden to use metal objects to kill birds, to bring food and alcohol to the breeding grounds, and to leave rubbish on the islands (Riddell 2003, p.19). Birding trips had to be approved. The break in the albatrosses take from 1900 to 1911-12 seems to have occurred because the birds became *tapu* 'off limits' following the drowning of nine islanders returning from an unsanctioned

birding expedition (Robertson 1991, p.8). Elsewhere, for those who lacked a close cultural relationship with the birds, such restraints were non-existent, and so the birds were exploited until the resource was exhausted or nearly so.

Changes in exploitation patterns and attitudes in the later 20th century

As the consequences of unrestrained exploitation became obvious, a major change occurred in the relations between humans and these birds. First it was signalled by the rise of legislated protection. In 1909 Laysan Island, west of the main Hawaiian group, became a bird sanctuary as a result of a presidential decree (Safina 2002, p.150). In 1920 Australian authorities refused to renew the commercial lease under which the natural resources of Macquarie Island had been exploited (Terauds & Stewart 2005, p.65). In New Zealand the passage of the *Animal Protection and Game Act 1921-22* brought protection for most albatross species, followed by some extensions in 1931 (Robertson 1999, p.9). Short-tailed Albatrosses on the Japanese island of Torishima gained protection in 1933 and were declared a national monument in 1958 (Safina 2002, pp.184-86).

But the enactment of legislation did not mean that exploitation stopped immediately. Because of the remoteness of the breeding islands, it was difficult, if not impossible, to police the regulations effectively. Poachers continued to raid breeding colonies for eggs, meat and feathers (Safina 2002, pp.150-51), and the killing and eating of birds remained a feature of people's experiences of the Southern Ocean. Members of the Cleveland Museum of Natural History expedition of 1925 ate the flesh of the birds they caught (Simmons 1927, pp.39-40). L Harrison Matthew, who wrote a book about his time with sealers and whalers on South Georgia and South Orkney in the late 1920s, dedicated it to "bird lovers, especially those who love them piping hot, well browned and with plenty of bread sauce" (Matthews 1951, p.ix). In wartime the needs of the birds were overruled by human needs as Midway Island, a breeding ground for Laysan Albatrosses, became a major US military base (Lindsey 2008, pp.105-06); in the Chatham Islands, the New Zealand government authorised the collection of albatrosses to be sent to the Maori Battalion during the Second World War (Riddell 2003, p.19).

Even when direct exploitation of the birds stopped, attitudes towards the natural world did not change greatly. It was still regarded as a source of benefit for humans, and in the case of the oceans, as something which could be harvested without restraint. Fish like tuna were widely popular and demand was high. Advances in fishing technology in the later 20th century saw the rise of the technique known as long-lining for tuna fishing, whereby immensely long-lines baited at regular intervals with hooks were trailed out behind boats. Many albatrosses were drawn to the baited hooks as the line was being set, attempted to take the bait and were caught by their bills and drowned. The very serious effects of this fishing on albatross populations from the 1950s to 1990s are well covered by WLN Tickell (2000, ch.17) and Michael Brooke (2004, ch.10), with Tickell outlining in detail the international efforts to reduce the damage and make the threat to albatross populations more widely known. There is evidence that these efforts have now reduced the annual mortality of albatrosses and some populations are showing signs of recovery (Lindsey 2008, p.112).

Indirect threats to the birds are more recent and are not confined to pressures as a result of new fisheries and fishing techniques. Terence Lindsey (2008, pp.106-08) outlines some of the threats posed by habitat modification on breeding islands as a result of the introduction of feral animals, including cattle, goats, pigs, rabbits, mice and rats. Again, authorities are responding to the threats, but generally only after the damage became severe. This is evident

in the reactions of the Tasmanian State and Australian Federal Governments to the situation on Macquarie Island (Terauds & Stewart 2005, pp.64-66).

Pressures to take action to preserve albatrosses come from conservation movements and concerned citizens of many countries, as well as from international treaties, like the *Agreement on the Conservation of Albatrosses and Petrels* (2001) which came into effect in 2004. Awareness in the developed world of these birds and their situation is sustained by a stream of high quality publications, often beautifully illustrated with the finest nature photography, in the form of coffee-table books, magazine and newspaper articles, as well as natural history documentaries on television and DVD, posters, websites, calendars, and similar kinds of material. It would be fair to say that these birds have become icons of the conservation movement, even in countries where the birds are not generally found, like the United Kingdom, which hosts the global office of BirdLife International, sponsor of major global seabird and albatross conservation programs (BirdLife International 2009a, 2009b).

The rapid increase in material featuring the birds aimed at a general market has been marked. In Australia, for example, there have been three monographs on albatrosses in the last five years (Terauds & Stewart 2005; Lindsey 2008; De Roy, Jones & Fitter 2008). Worldwide, there have been many works published recently which are aimed at helping interested readers to identify these birds (e.g. Onley & Scofield 2007; Shirihai 2007). This rising interest coincides with the rise in green political movements and green agendas in existing political parties in a number of developed countries, and also with organisations advocating sustainable production practices, like the Rainforest Alliance or Fair Trade, along with increased concerns about the sustainability of practices and long-standing consumption patterns in the light of climate change and diminishing natural resources.

While an increased awareness of albatrosses has undoubtedly produced some benefits for the birds, such as international conservation treaties, human attitudes towards them are still based on a use value. Previously their value lay in their capacity to be exploited for human physical needs. Now it lies in their contribution to people's spiritual and emotional needs, as they are almost venerated as emblems of the wild and magnificent natural world, as awe-inspiring creatures with the capacity to live long lives in harmony with the most hostile region of the planet. Thus readers and viewers of the glossy books, photographs, DVDs and TV shows can feel that in some way they are benefitting from a greater familiarity with these birds. If such people are then moved to support conservation movements and pressure governments to better address the situation that the birds face, then this may appease their concerns about their relationship with the oceanic environment and their responsibilities towards it, and thus provide a form of comfort and personal well-being.

Changing attitudes and new dangers for albatrosses

It should be evident that as human societies have changed – in terms of the view of what constitutes use value, or in terms of advances in material culture, or extensions of practices of harvesting ocean resources – so too have attitudes towards albatrosses, though these are still based on use value. Even as the cultural status of the birds rises in developed countries and some benefits to them flow from that, so do further challenges to the sustainability of their populations. Increased awareness, coupled with highly attractive colour, still and motion photography, can inspire people to want to visit the parts of the world that the birds frequent and this leads to a demand for tourist experiences. Eco-tourism to the Southern Ocean islands and the Antarctic is increasing rapidly as individuals and organisations in several countries begin to provide services to meet this demand. Statistics from the International Association of

Antarctica Tour Operators (IAATO) website show a fivefold increase in tourist visits from an estimated 6,704 in 1992-93 to 37,734 in 2008-09. Even though the basis for collection of figures has changed somewhat – for example, the early figures do not include commercial yacht activity – the rapid increase in tourist visits is plain.

Tourism poses particular challenges, especially to remote breeding colonies. Even though no albatrosses breed in Antarctica, they do frequent some Antarctic waters and so they are potentially at risk from increased tourist visits. In 1991 signatories to the Antarctic Treaty established a Protocol on Environmental Protection to the Antarctic Treaty and IAATO members have adopted guidelines for watching marine wildlife in keeping with the provisions of that protocol (IAATO 2002). These guidelines aim to minimise disturbance, protect wildlife and avoid harmful impacts. Breeding colonies are on islands controlled by sovereign nations, unlike Antarctica, and access to them is subject to the control of those nations. For instance, in the New Zealand subantarctic islands, access for tourism purposes is controlled by a permit system managed by the Department of Conservation (DOC) with fewer than a thousand visitors permitted per year, and the main tour operator, Heritage Expeditions (2009), is a concession holder licensed by that department. Here too there are strict rules in the form of a Minimum Impact Code governing wildlife viewing (DOC 2009).

But guidelines, codes and permits, even if strictly adhered to, are limited in the actual protection they offer. There are dangers which they are powerless to prevent. Aircraft on sightseeing flights can crash, as Air New Zealand flight TE901 did in November 1979, flying into the slopes of Mt Erebus, near McMurdo Sound, Antarctica. Ships can sink, even those specially strengthened for Antarctic conditions, like the MS *Explorer*, carrying 154 passengers and crew, which struck an unidentified submerged object and sank in November 2007 in the South Orkney Islands. Neither incident directly harmed albatrosses, but the potential for harm is plain. Apart from this, the longer term impacts of human visits to breeding colonies are not well-established. The most visited colony, that at Taiaroa Head, near Dunedin, New Zealand, has successfully combined tourism with an increase in the number of breeding birds, but this has been brought about by protecting birds from introduced predators and from the natural curiosity of visitors through the erection of fences to prevent unauthorised access and the employment of local field staff (Royal Albatross Colony 2010). It will be more difficult to achieve similar results in places which are more remote and less subject to the constant vigilance of wildlife authorities.

Conclusion

Thus, at least for birds living in the Southern Ocean, there is increased danger from tourism based on the new use value that the birds offer humanity. It seems likely that such dangers may have some serious impacts on these birds, as happened in the case of their exploitation for human physical needs, and in the case of the effects of long-line fishing, and it may be some time before humanity reacts and adjusts its practices and expectations. One way of making those adjustments would be to rethink our relationship with the natural world represented by these birds. A shift in the way of engaging with them might see them, not in terms of their use value to humans, but as creatures which have rights and a place of their own in the world we share. A greater willingness on our part to do this by valuing them for themselves, rather than for what they do for us, will help to achieve a more sustained relationship between humans and the environment with valuable consequences for the well-being of both humans and birds.

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CHAPTER 19
Indigenous sea rights[i]

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Keywords
sea rights, Australian High Court, Maori sea claims, Croker Island, Blue Mud Bay, Haida Nation

Abstract
Philosophers have a long history of trying to clarify and defend human rights. This has taken various forms, e.g. the battles against slavery, sexism and racism. In Australia as well as other countries the defence of land rights for indigenous people has received support in recent times while sea rights are usually overlooked. This article focusses on Australia and moves by indigenous people to assert ownership over the sea around their lands. What ideas underpin these initiatives and the attempts to block them? The 'seamark' High Court Blue Mud Bay case in 2008 marks a significant advance in the recognition of sea rights.

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Ethical arguments concerning human rights are dominant themes in western thought. They have inspired battles against slavery, sexism and racism. In Australia the defence of rights for indigenous people has often taken the form of a moral imperative and has led to land rights legislation. Recent moves by indigenous groups to be granted sea rights have met with strong resistance yet the same arguments mounted for land rights apply. Why is the sea treated differently? Could there be a way of achieving social justice for the sea rights claims of indigenous groups? This article begins with a discussion of indigenous views about ownership and shows how they contrast with western beliefs. It then outlines the main contemporary attempts to assert ownership of the oceans by indigenous communities outside Australia. The New Zealand situation is shown to be much more contentious than is commonly believed despite the Treaty of Waitangi. The focus then shifts to the two Australian High Court decisions on indigenous sea rights and their ramifications.

Ownership as belonging

Unconstrained by western philosophical ideas about land ownership and untouched by the development of cities, before conquest indigenous peoples enjoyed a very close association with their territories and the animal life within them. This is evidenced in art, oral histories and contemporary writings. The conceptual links varied in different places but one common theme is the deep sense of belonging to territory, a notion quite different from land ownership in the western tradition, based as it is initially on occupation and later on the acquisition of a legal title to a parcel of land upon payment. Ownership in this way of thinking appears quite superficial in comparison. The sense of belonging does not seem to depend on living in a

[i] These arguments are critically examined in Russell, D 2010 *Who Rules the Waves: Piracy, Overfishing and Mining the Oceans*, Pluto, London.

confined 'private' space, since it was felt as keenly by the Aboriginal peoples of the Western Desert in Central Australia (whose range extended over hundreds of kilometres) as it was by the inhabitants of Croker Island, a small space in northern Australia (Haynes 1998, p.12).

Another belief that indigenous peoples share is the lack of a clear distinction between belonging to the land and belonging to the sea. The Maori writers Nin Tomas and Kerensa Johnston (2003) express this as follows:

> Coastal tangata whenua [People of the Land] have always asserted their "rangatiratanga" [Maori stewardship and ownership] … over the coast and surrounding seas [of Aotearoa: New Zealand]. … areas of the sea have been jealously guarded mai raano (since time immemorial), with pou (sign-posts) being erected and rahui (restrictions) being set up to notify group territoriality. In pre-European times wars were fought between rival groups to protect rights to the sea and the foreshore and to oust interlopers. Taniwha [spiritual sea creatures] often acted as guardians of those rights. Knowledge of their presence throughout the area and their association with specific human whakapapa (ancestral lines), identified rights to the area as being vested in particular groups. These particular tikanga [values] were an accepted part of Maori custom law.

Ownership of the sea in this perspective relates to kinship links more than to occupation and survey definitions.

The people of the Haida Nation consider themselves the rightful owners of Haida Gwaii, the Queen Charlotte Islands of British Columbia, Canada. In Haida these are also called Xhaaidlagha Gwaayaai: islands on the edge of the world. The *Constitution of the Haida Nation* (2006, p.5) says "Our culture is born of respect; and intimacy with the land and sea and the air around us."

Meyers et al (1996, p.iii) describe the view of the Australian indigenous population as follows:

> Ever since Aboriginal people have occupied Australia, they have used the sea and its resources. Where there are useful materials and food to be taken from the sea, they are taken. Aboriginal people have always travelled across the sea and traded goods obtained from the sea across vast distances of the interior. They do not recognise any *de jure* distinction between land and sea. Aboriginal estates that border the sea normally extend into the sea with no artificial distinction created, as in Western law, between the aquatic and the terrestrial. Aboriginal religious Law recognises significant places in and above the sea in the same way these places are recognized on land.

These ideas are expressed less formally but more poetically in "We always look north" (Bradley 1998).

With this broad idea about territory and a rich sense of ownership as belonging it is easy to imagine the disbelief, confusion and outrage of the indigenous peoples when western conquerors came and asserted land ownership. As outsiders these conquerors could not experience a sense of belonging to the land or sea. When the Maori chiefs were asked to comment on the proposals for ceding the sovereignty of their country to Queen Victoria, Chief Te Kemar accused the British of taking their land and demanded that it be returned. Addressing the Governor he said in Maori:

> O Governor! Go back. Let the Governor return to his own country. Let my lands be returned to me which have been taken by the missionaries – by David and by Clarke, and by who and who besides. I have no lands now – only a name, only a name. Foreigners come; they know Mr. Rewa, but this is all I have left – a name. What do Native men want of a Governor? We are not whites, not foreigner. This country is ours, but the land is gone. Nevertheless we are the Governor – we, the chiefs of this our fathers' land. I will not say 'Yes' to the Governor's remaining. No, no, no; return. What! This land to become like Port Jackson and all other lands seen [or found] by the English. No, no. Return. I, Rewa, say to thee, O Governor! Go back (Moon & Biggs 2004, p.201).

Despite these strong words, shortly after this speech in 1840 Chief Te Kemar (along with the other Maori chiefs) signed the *Treaty of Waitangi*, with the British turning Aotearoa into the British colony of New Zealand but securing some territories for the Maori (Moon & Biggs 2004, p.464). There was clearly a lack of clarity about the extent of these territories with at least some of the Maori chiefs believing that all the land would be regarded as theirs as that is how they viewed it. However in the following years it became clear that the Maori were to be granted their villages, pa [buildings], burial grounds and cultivated lands only. Land beyond these areas was considered 'wasteland', and the Crown took ownership of it and sold it to settlers who by 1861 outnumbered the Maori (Moon & Biggs 2004, p.391). The Treaty and the 'clarification' did not put an end to disputes over sovereignty and territory.

In Australia it was not just the areas beyond indigenous settlements that were regarded as wastelands, it was the whole land. This was encapsulated in the idea of *terra nullius.* There was no recognition of indigenous ownership of land. It is debatable whether there was recognition of the Aborigines as people. Alfred Searcy, a customs officer in northern Australia from 1882 to 1896 writes about the sale of Entrance Island where Aboriginal people were living: "Of course the niggers would give trouble but settlement by determined men has a soothing effect … wholesale murder is inevitable in developing a new country" (Searcy 1909, p.84). This idea that the land belonged to no-one before the arrival of the British was overturned in the 1992 Mabo judgement in the Australian High Court (*Mabo and Others v Queensland (No. 2)* [1992] HCA 23), which was initially a strong endorsement of land rights for Aboriginal peoples but which then became watered down by later government decisions. Land claims are still being contested.

The notion of *mare nullius* is similar to the idea of the freedom of the seas. The sense of ownership of land encapsulated in western thought involves the idea of partitioning a segment of space and marking this out, if not actually on the space with perhaps a fence then at least theoretically in maps and measurements. This is not easily translated into ownership of the sea – as I discuss in my forthcoming book *Who Rules the Waves?* (Russell 2010). However, the idea of ownership as belonging can easily extend to sea territory, especially when no radical divide between the two realms is accepted. This clash of frameworks for understanding ownership has been one reason why it is much harder for indigenous peoples to assert their rights over the sea than over the land. In addition, with land claims, conflict arises with private owners or the government, but with sea claims, conflict arises with the government and more importantly with international law. The idea that anyone can navigate and fish the oceans, as strongly defended by Grotius (in Scott 1916 (1608), is still subject to the constraint of some fishing agreements in international law. Around many coasts there is a legal possibility of exploiting natural resources such as oil and gas in the sea in territories which indigenous peoples believe belong to them. Such exploitation may be opposed by the

indigenous groups but with their claims to ownership of the sea having no legal standing such opposition cannot get very far.

Contemporary attempts to assert ownership of the oceans by indigenous groups in North America and New Zealand

Despite the conceptual and political difficulties, in the last decade or so several indigenous groups living in different continents have mounted legal cases to try to gain ownership of sea territory. I will briefly mention some of these initiatives, and then elaborate in greater detail on the moves by indigenous Australians to gain ownership of the sea which had a positive outcome in 2008.

During 1998 five Alaskan native villages took the Secretary of Commerce to court asserting aboriginal title to portions of the US outer continental shelf in Prince William Sound in the Gulf of Alaska, and the lower Cook Inlet regions of Alaska. In particular they argued for an exclusive right to fish. Their claim was based on exclusive rights of occupancy and use of the continental shelf over a 7,000 year period and the fact that they still depended on fishing for subsistence. The Court concluded that they did not have this exclusive right and thus denied them title to the waters claimed. The right of navigation, the public right to fish, and national defence were used against the claimants (Fletcher & Prewitt 1998).

The Haida nation of British Columbia state in the nation's Constitution that their "territories include the entire lands of Haida Gwaii, surrounding waters, sub-surface and air space recognizing the independent jurisdiction of the Kaiganii. The waters include the entire Dixon Entrance, half of the Hecate Straits, halfway to Vancouver Island and Westward into the abyssal ocean depths" (*Constitution of the Haida Nation* 2006, pp.5-6). This statement is at odds with the assertion of ownership over the offshore areas by the Province of British Columbia.

The clashing views concerning ownership are currently affecting debates about whether oil and gas exploration should go ahead in the Hecate Straits. Grand Chief Edward John from the First Nations Summit, North Vancouver says that the Haida have a legitimate "legal interest in their territories" (John 2000, p.10). What they are being offered now is consultation that the Grand Chief treats with derision. He does not believe that the genuine legal and legitimate constitutional interests of the Haida are being taken seriously by the government in British Columbia and so he will continue to promote their case.

In New Zealand, the Maori were granted fishing rights in the *Treaty of Waitangi* (1840), which was signed by representatives of the British crown and 540 Maori chiefs but from the 1860s restrictions were imposed on these rights. These restrictions accelerated in the 20th century. The Treaty gave sovereignty to the British with certain protections for the Maori, but then the British used the sovereignty to undermine these protections. There have been battles over ownership of the sea and fishing rights. One recent case looked at the ownership of the foreshore and seabed of Marlborough Sounds. This modest claim was made fifty years after an attempt to claim ownership of the oceans around New Zealand. In the *Tai Tokerau* case heard by the Maori Land Court in 1955 (*Taumata Kaumatua o Ngapuhi (Speaking Elders for ngaphui), (*Taitokerau, [1955] MLC 306). the Maori spokesperson argued that:

> The water surrounding New Zealand should be held in trust for all Maori, because their ancient canoes had crossed and re-crossed the Pacific Ocean long before Europeans discovered Moana (the ocean). The kaumatua [Speaking Elder] stated that they had a duty to their ancient tupuna (ancestors) to ask the Court to recognise their

> interests in the ocean, as a mark of respect to Moana's wisdom … in making this part of the world so extensive that New Zealand could be fished from the sea far away from lands involved in troublesome conditions. (Tomas & Johnston 2003, p.7)

This case was dismissed as the Court decided that it did not have jurisdiction.

In 2003 the Maori Land Court was given jurisdiction to hear the *Marlborough* case (Bargh 2006), p.1). This resulted in public outrage even though there was no certainty that the court would find in favour of Maori claims. One ramification of concern was the possibility of having to recognise territorial rights to marine areas which are not covered in English law. The Government made clear its intention to legislate to protect the foreshore and seabed for all New Zealanders. The *Foreshore and Seabed Act 2004* secured Crown ownership of these areas. Maori are entitled to take claims concerning territorial rights to the High Court but their rights and remedies are of a lesser kind than would have been possible previously (Bargh 2006, p.14). The United Nations Committee on the Elimination of Racial Discrimination released a report on this legislation in 2005 saying that it "appears … on balance to contain discriminatory aspects against the Maori" (quoted in Bargh 2006, p.16).

Australian High Court decisions on sea rights

Claims about ocean ownership and occupation have been tested through the Australian courts for some years, and Hugo Grotius' reasoning has been employed. In particular it is his arguments for the freedom of the seas[i] that have been used by Australian Courts to deny Aboriginal sea rights. The first case to reach the High Court of Australia was brought by Mary Yarmirr and others on behalf of several Aboriginal groups from Croker Island off the Northern Territory in 2001 (*The Commonwealth of Australia v Yarmirr; Yarmirr v Northern Territory of Australia* [2001] HCA 56). My aim in discussing this case and the following Blue Mud Bay case is not to fully examine arguments for and against indigenous sea rights but rather to show how current legal reasoning is still caught up in Grotius' argument from occupation and his defence of the public rights to fish and navigate. The former runs as follows:

1. Sovereignty implies private ownership.
2. Private ownership arises from occupation.
3. The sea is limitless.

Therefore 4. The sea cannot be occupied, so it cannot be privately owned.
Therefore 5. There cannot be sovereignty over the sea (Grotius in Scott 1916 1608) p. 45.

The claimants first argued that the native title rights and interests they hold confer possession, occupation, use and enjoyment of the sea and seabed within the claimed area to the exclusion of all others. The claimed area was 'as far as the eye can see' from Croker Island. The Federal Court judge acknowledged that they had a full range of native title rights to fish, travel over the sea and to safeguard spiritual sites but he did not grant these rights exclusively (*Yarmirr and Ors v. the Northern Territory of Australia and Ors* [1998] FCA 771).

The Commonwealth appealed to the High Court claiming that native title rights could not extend into the sea. Mary Yarrmir appealed on the grounds that the *Native Title Act* (1993) should allow Aboriginal people exclusive rights over the sea country just as they enjoyed exclusive rights over land country on the island. The majority judgement of the High Court delivered in 2001/2002 dismissed the Commonwealth's appeal. The judges accepted that native title rights and interests do exist over the claimed seas but not in an exclusive sense

(*The Commonwealth of Australia v Yarmirr; Yarmirr v Northern Territory of Australia* [2001] HCA 56).

The claimants wanted to be able to exclude others. Their traditional beliefs entail exclusive rights, for instance, their past actions in dealing with the Macassans over centuries showed that they had exercised this right (Russell 2004). The Macassans came to Croker Island and surrounding areas gathering trepang and negotiating this activity with the Aboriginal people. The judges said that the claim to exclusion was inconsistent with the public right to fish, the right of innocent passage and navigation that are the rights which Grotius had defended and the rights laid down in the Law of the Sea. The claimants were persuaded that they couldn't win a challenge to international law so they put in a revised claim – that their rights and interests be acknowledged subject to a qualification recognising the international rights. This was less than what they wanted and felt entitled to. In particular the claimants have a current interest in preserving sacred sea areas against tourist traffic and in protecting the fish stocks in the inshore areas that form a major part of their diet. The High Court decided that the claimants have a right to visit and protect places within the claimed area that have cultural and spiritual importance. However, if there isn't control of access to and use of such areas how can they exercise protection? Similarly, the claimants have a right to fish these waters, but if there is no exclusive right how can they protect their food sources from large-scale non-Aboriginal fishing ventures?

Even the High Court Justice Kirby who clearly wanted a result favouring the claimants' view found in his minority judgement that he could not question the rights of Grotius. He stated that by its nature the sea is not capable of being occupied as non-indigenous people understand that term, but that "the claimants' argument that their traditional laws and customs do recognize a form of 'occupation' and 'possession' of the waters has obvious factual merit" (*The Commonwealth of Australia v Yarmirr; Yarmirr v Northern Territory of Australia* [2001] HCA 56). As a result he wanted to give the claimants the power of effective consultation and a power of veto over other fishing, tourism, resource exploration and similar activities within their sea country "because it is theirs and is now protected by Australian law" (*The Commonwealth of Australia v Yarmirr; Yarmirr v Northern Territory of Australia* [2001] HCA 56). It is hard to see how this position avoids inconsistency. If Justice Kirby accepts that the sea in question cannot be occupied (in the English sense) then he believes that we have to infer that it cannot be owned and that there is (for instance) a public right to fish. At the same time, he wants to accord Aboriginal people rights of veto over non-Aboriginal fishing based on a different (Aboriginal) type of occupancy. In other words, Justice Kirby was trying to find a way around the international law without putting out a challenge to Grotius' list of rights.

Another complexity of this case is that Australia is supposed to have sovereignty in the territorial sea. If occupation is important for exclusive rights then it would seem to be important for sovereignty too. Yet Justice Kirby states that by its nature the sea is not capable of being occupied and this is his reason for denying exclusive sea rights to indigenous peoples. To be consistent he should deny that Australia has sovereignty over the territorial sea but he has not done so. I think that to hinge sea rights or sea sovereignty on a notion of occupancy is always going to be difficult, since no clear meaning can be given to the sea being occupied. We can talk about sea borders with GPS measurements but that is a different idea from occupancy.

A more recent case regarding indigenous sea rights shows further dimensions of the tangles in reasoning stemming from the view that ownership arises from occupation. This is the case brought by Gumana for several Aboriginal groups against the Northern Territory Government, known as the Blue Mud Bay case (*Northern Territory of Australia v Arnhem Land Aboriginal Land Trust* [2008] HCA 29). This native title claim seeks the right to exclude others from the intertidal zone and from the sea around certain sites of significance. The territory in question is part of Blue Mud Bay in east Arnhem Land, Northern Territory. The intertidal zone may sound like a small area, as it is the difference between the high and low water marks. In Blue Mud Bay the tidal difference is generally about 2 metres. Even a 2 metre tidal difference can amount to a large change in sea space if the sand gradient is very small – and in northern areas of the Northern Territory tidal differences of 7 metres are common. In addition, if this case succeeds traditional owners will be given exclusive access rights to 80% of the Territory's coastline and river systems.

In 1980 the Arnhem Land Aboriginal Trust was granted ownership of the land area of Blue Mud Bay. The seaward boundary of the relevant land was defined as the low water mark. One question asked by Federal Court Justice Selway was whether this grant conferred on the Land Trust the exclusive right of occupation over the whole area of the grant? In particular he wanted to ascertain whether it excluded any public right to fish or navigate. Judge Selway stated that given there was a reserve over the area "then the Aboriginal peoples did occupy the intertidal zone in a similar way to the land. Hence the public right to fish and to navigate has been abrogated in this area". However he felt that he couldn't conclude this as he was bound by the Croker Island case that upheld the public rights even though he felt uncomfortable with it (*Gumana v Northern Territory of Australia* [2005] FCA 50). Judge Selway died before final orders were made and Judge Mansfield took over. He denied an exclusive right to ownership of the relevant waters and so found in favour of a public right to fish and navigate. However he gave the Aboriginal claimants the right to control access to these areas mirroring Justice Kirby's apparent inconsistency. He did not grant the Aboriginal claimants the right to control access to certain sites beyond this zone that they wanted to maintain and protect. However he recognised that there is a right within Aboriginal beliefs to control access of other Aboriginal people who agree to be governed by traditional laws and customs (*Gumana v Northern Territory of Australia* [2005] FCA 1425). This is weak since it does not prevent others from, for instance, driving speedboats to sacred sites in the ocean such as fragile rocky outcrops.

The Appeals Court didn't alter the Federal Court's finding about sacred sites. However, in a surprise decision they altered the finding about inshore areas. The judges considered the Croker Island case and decided it was 'plainly wrong' and 'ought not to be followed'. They argued that given there was a land grant to the low water mark this conferred an exclusive right over the intertidal zone of the land grant. There is no public right to fish or navigate in this area. Fishing in the water flowing over the intertidal zone of the land grant from a boat would be "no less a trespass …than would fishing from the surface of the land in that zone" (*Gumana v Northern Territory of Australia* [2007] FCAFC 23).

The Appeals Court didn't take up Selway's claim that the indigenous people occupy the waters of the intertidal zone. It is the fact that they occupy the land, which is regularly underwater, which is the basis of their exclusive rights to the water above it. This is still not a challenge to Grotius as occupation is the pivotal point in assigning rights. It is because indigenous peoples cannot be said to occupy the waters around their sacred sites beyond the intertidal zone that they were not granted exclusive rights of possession to them.

In one of the most important High Court cases to be conducted in Australia, the Appeals Court finding was upheld (*Northern Territory of Australia v Arnhem Land Aboriginal Land Trust* [2008] HCA 29). The majority decision of the judges was that there is no public right to fish in the intertidal zone of the contested waters. They claimed that this right had been taken away by the state *Fisheries Act* (1988) which controls where fishing can take place in the Northern Territory. Under this Act, fishing licences are distributed for certain areas. So the High Court judges found that the Federal Court Judge Mansfield was wrong to assume a public right to fish ruled out Aboriginal claims to exclusive fishing rights. Such a finding up to this point could be viewed as the first major rejection of Grotius' views about the public right to fish laid down by an Australian court. Prior to this decision it would have been reasonable to assume that the public right was primary even if it could undergo modification with the requirement for licences or the need to abide by quotas. Now the High Court has decided that the public right to fish does not exist in Northern Territory waters. The *Fisheries Act* regulates fishing. That is what is primary.

The High Court also addressed the question whether there was any competition between the rights under the *Fisheries Act* and the grants given to the local Aboriginal people under the Northern Territory *Land Rights Act* (1976). Here they decided that the *Land Rights Act* should take priority. The majority decision stated:

> The *Land Rights Act* … must be understood as granting rights of ownership that for almost all practical purposes, [are] the equivalent of full ownership of what is granted … it is a grant of rights that include the right to exclude others from entering in the area identified in the grant. (*Northern Territory of Australia v Arnhem Land Aboriginal Land Trust* [2008] HCA 29).

The High Court decided that the grants related to the land to the low water mark and that entry within the boundaries of that area, whether covered by tidal waters or not, was prohibited under the *Land Rights Act* (1976), unless the owners gave permission.

From here the reasoning becomes convoluted. It would be easy to assume that if Aboriginal people are granted ownership of an area covered by water (at least on a regular basis) then they are granted ownership of this bit of sea, but this is not so. The judges want to define this part of the sea as land:

> 'Aboriginal land' when used in the *Land Rights Act* should be understood as extending to so much of the fluid (water or atmosphere) as may be above the land surface within the boundaries of the grant and is ordinarily capable of use by an owner of land. (*Northern Territory of Australia v Arnhem Land Aboriginal Land Trust* [2008] HCA 29).

Hence the Aboriginal claimants as owners of the land to the low water mark are owners of this 'land' even if it looks like sea. They have exclusive fishing rights and there is no public right of navigation in this area. It would take an Act of Parliament to change this outcome. High Court Justice Kirby said that if a government wishes "to qualify, diminish or abolish these legal interests it must assume electoral and historical accountability" (*Northern Territory of Australia v Arnhem Land Aboriginal Land Trust* [2008] HCA 29).

The ramifications of this decision will be felt at the state and national levels, and possibly also internationally. There is no difference between the land grants in Blue Mud Bay and most of the Northern Territory coastline. Where the tidal differences are large, the legal title to huge tracts of sea will be justified under the claim that the intertidal zone is Aboriginal

land. As the Aboriginal owners have the right to exclude others from this land/sea they will be able to make use of the territory for their economic benefit either by direct exploitation of the marine life or by the selling of licences to others to exploit the fish, turtle, trepang and other creatures. This will enable these Aboriginal groups to move out of poverty and help mitigate the sense of injustice felt for 200 years of white control of the seas around their lands.

The national impact will flow through to other Aboriginal communities that have land title down to the sea. However, under different state laws this may not have identical results in each state. The northern communities have the most to gain as it is here that the intertidal differences are greatest.

The other national impact concerns the Croker Island decision (*Commonwealth of Australia v Yarmirr; Yarmirr v Northern Territory of Australia* [2001] HCA 56) that held up sea rights claims for seven years. This decision is no longer regarded as the benchmark. It defended the public rights of fishing, innocent passage and navigation against the exclusive use of Aboriginal peoples. Given the legal criticisms now made of this judgement the possibility arises that there might be grounds to agree to exclusive Aboriginal use of the sea or even ownership of the sea. This is what the High Court in the Blue Mud Bay case decided but their grounds were odd. They felt that they needed to declare certain sea territories to be land in order to award ownership to the sea. However this could be seen as a type of legal conceit. It may be that the judges were motivated to award sea rights to Aboriginal owners of the adjoining land for other reasons. Perhaps they accepted the argument that the owners do not see any significant distinction between land and seas; that for centuries their ancestors had occupied and used these waters, that Aboriginal people felt a spiritual link with this sea territory, that granting these areas to Aboriginal people for their exclusive use would help redress the injustice of taking their territory away from them, and so on. Though these thoughts do not surface in the written judgment they are likely to be behind the strange legal reasoning that land can equal sea, *otherwise why take that path?* Therefore, if Australian legal thinking has these motivations then it will not be a big step to say that sea territory with long historical links with Aboriginal use and spiritual beliefs should be open to ownership claims. As a matter of justice, it would seem that these claims should be considered quite independently from anything to do with intertidal areas.

The High Court decision was made shortly after the recently elected Prime Minister Kevin Rudd made a formal apology to Aboriginal people for past wrongs including injustice in the law. Although the courts are supposed to be independent of government it is difficult to imagine that the apology regarded as very significant by Aboriginal and non-Aboriginal Australians had no guiding force. If it did then the suggestion would have been to find a way to give some sea territory back to Aboriginal people for the general reasons listed above, and it is here that international impact might ensue. We saw above that many contemporary struggles over ownership of the sea by indigenous people share common elements. If one nation is able to cede some sea areas to indigenous ownership it could serve as a precedent for other battles. Despite what the High Court judges said in the Blue Mud Bay case, if we think beyond the legal conceit, then their decision challenges the public right to fish and to navigate, and it acknowledges the claims of Aboriginal people to ownership of the sea. Once these aspects of international law are thrown into question, there should be an opening for other indigenous groups to claim legal title over the sea.

In western thought the sea has been treated differently from land as conceptually the border between land and sea is a radical divide. In particular, the sea cannot be owned in the way that land can be owned. Indigenous perspectives on ownership as belonging negate this view. In *Who Rules the Waves?* (Russell 2010). I explore further how it might be possible to give up state sovereignty over certain marine areas in order to recognise indigenous sea rights. I hope that in the future it will not be necessary for indigenous groups to resort to lengthy legal battles to establish entitlements. One heartening sign is the Kuuku Ya'u native title determination (*Walker v State of Queensland* [2007] FCA 1907. This indigenous group is also known as the Sandbeach people. In 2009 significant land and sea areas on the eastern coast of far north Queensland were handed back to the Sandbeach people who had ancient bonds with this area. This result was achieved by negotiations between the Kuuku Ya'u and the state and federal government (among others). There was no need to go to the High Court. It might have been necessary to have the High Court decision on Blue Mud Bay to make the passage of the Sandbeach people's claim easier, and to further the aim of social justice even when state sovereignty and non-indigenous commercial interests suffer. However, a future of negotiated settlements would be far preferable.

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CHAPTER 20

Designing a digital ecosystem for the new museum environment: the Virtual Museum of the Pacific

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Keywords
Digital ecosystems; folksonomy; collection management; formal concept analysis; Pacific Island communities and collections; Virtual Museum of the Pacific

Abstract
The Virtual Museum of the Pacific is a social media platform for a digital ecosystem, which enables a variety of user communities to engage with the Pacific Collection of the Australian Museum. The success of the system depends on facilitating the development of culturally relevant folksonomies and encouraging a conversation between online communities. In this paper we explore the relationships between stakeholders, folksonomy and taxonomy, to reveal the design strategies which inform this digital ecosystem. Our analysis defines the scope for the social tagging component of our information model and discusses how users might interact with objects (in terms of their knowledge base) and also contribute to ongoing taxonomic definitions. Given its capacity to span both collection management and community access issues, we contend that the Virtual Museum of the Pacific is a significant model for online community interaction in the contemporary museum environment.

* * * * *

Introduction

Debates about ownership, protection and nation-states pervade the museum industry in the early 21st century, played out in discussion over the Elgin Marbles, the trade in antiquities, the repatriation of Indigenous artefacts and histories of race and nation. In the face of stringent shifts in cultural property laws and collecting policies for antiquities, James Cuno (Cuno 2009) has recently argued a case for the encyclopaedic museum as a site of global cultural diversity which overrides current national agendas. In Australia, where the antiquities issue is less highly charged, museums have become acutely aware of the connections between their cultural collections and the living Indigenous communities from which they originated. The repatriation of objects, or at the very least, the development of strong communication links with the communities from which they originated, has become an ideal for many museum curators (Batty 2005). While objects, and their storage, display, and interpretation remain central to the museum's existence, intangible heritage – narratives, memories and functions of human interaction with objects – is increasingly valued as an

alternative source of authority and enrichment for museums. The voices of traditional owners of cultural collections are being listened to as well as the histories of colonial missions, trade, governance, and exploration which brought them into existence in the Western institution that is the museum. But if the social and cultural value of both museums and the objects within them is widely acknowledged and embedded in the concept of a civilised society, how that value is demonstrated, and for whom, is constantly under negotiation. In the contested space of the museum, access and education, conservation and research, exhibition and commercialisation are often competing agendas. New technologies are also a significant force in the contemporary museum environment. The project we describe in this paper, the Virtual Museum of the Pacific (VMP), is a model for online community interaction with collections, which operates within an understanding of objects and their meanings as dynamic, contested and negotiable.

The concept of an ecosystem and a museum resonate with each other – if we take an ecosystem to mean a complex system of interaction between organisms and their physical environment that is simultaneously self-contained and highly interdependent. It is this resonance that the VMP draws on in using the metaphor of a digital ecosystem to describe its ambitions and scope. The VMP is a digital environment for exploring and defining the relationships among a selection of the 60,000 objects in the Pacific Collection of the Australian Museum. The main motivation in the experiment of the VMP is to provide better access to the Museum's Pacific Collection for a wider variety of stakeholders and to give those communities a useful mechanism for accessing and annotating objects that are important to them. These include creator communities from Pacific Island countries and territories, Pacific diasporic communities in Australia, scholars, and other stakeholders with an interest in Pacific collections.

The relationships between the objects of the collection are explored via a rich Internet client using web services provided by our Formal Concept Engine. These services are used as input for generating web pages (Figure 1) that assist users to navigate by unobtrusively rendering a concept view with links to its upper (more general) and lower (more specialised) neighbours. The navigation paradigm is based on a technique called Formal Concept Analysis (Eklund et al. 2009) and the resulting design comes from more than ten years of research, development and testing. Navigating the Pacific Collection depends on the relationships and attributes described in the metadata associated with the objects in the collection. The semantic associations are derived from this content; as new content is added then new pathways will be revealed.

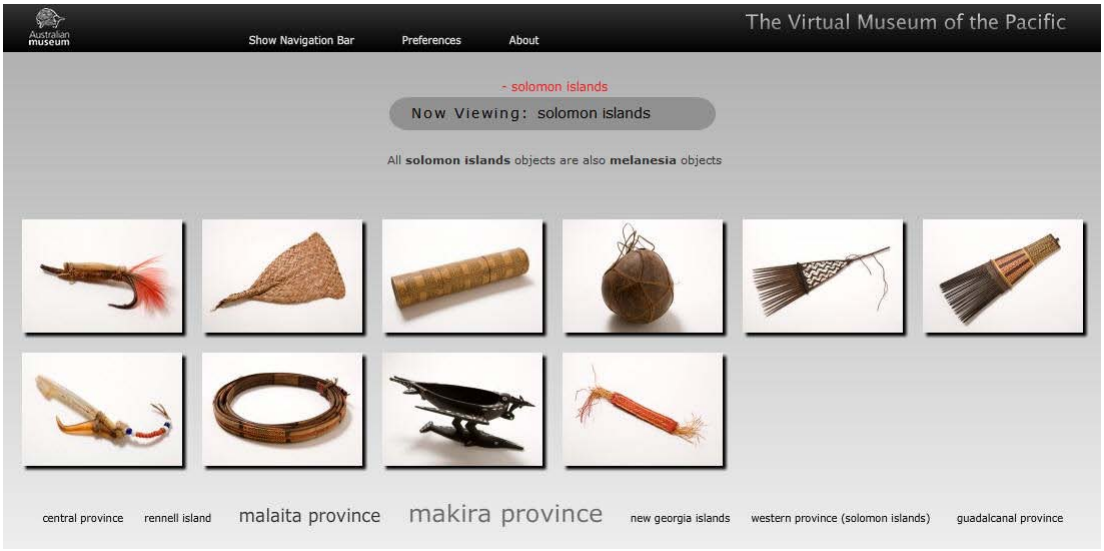

Figure 1

Information technologies have been used in museums since their inception to assist in classification and location. Later on they have also been used for documentation, communication and access; and recently social media's potential for audience development and interaction is also being explored. However, there are complex and unresolved questions about how a 'virtual' museum could operate, with very few viable models in operation, and little information about the limits and capabilities of such a concept. This is the terrain that the VMP ventures into. We outline how the VMP moves across the various genres of information management in museums, incorporating each of them into its structure, from the gathering of metadata via traditional taxonomies through to addressing specific communities of users. We describe community interaction through tagging, annotation, and metadata management, and show how this can influence the design of the VMP. We conclude that the VMP model suggests some significant technical and cultural pathways for both opening up museum collections and managing diverse community access to them. Technological and social innovations are inextricably linked in this model.

Sourcing metadata

The metadata used by the VMP for navigation and discovery within the collection is imported from the Australian Museum's Collection Management System (CMS). The current effort to digitise collection records is the latest part of an ongoing commitment by the Museum to computerise its records, including those of the Pacific Collection. An overview of the typical life cycle of a record demonstrates the evolution of the Pacific Collection's metadata. The Australian Museum acquired the objects in its Pacific Collection from many sources over the last 150 years. The process of adding an object to the collection is reasonably uniform. For example, the 'pearl-shell inlay comb' (Figure 2) was entered into the Museum's 'Register of Ethnology' as registered item E11110. This registry entry is the first association of the collection's descriptive information – or 'metadata' – of the object, and thus creates its unique and permanent registration number. This registry entry is also the initial source of the 'user warrant' (National Information Standards Organization (U.S.) 2005, p.10) for the vocabulary associated with the object. By 'user warrant' we mean that the staff who entered the object in the register (the 'users') have the 'warrant' to generate the object's descriptive information.

Figure 2

At a later point in time an index card was created which included the object's provenance, more detailed descriptive text, and, on the card's reverse, the object's physical measurements. Later, as objects are added to the CMS, they are further described, and have a simple, practical corporate taxonomy applied to them. The spreadsheet documenting the Museum's taxonomy presents the 'organizational warrant' (National Information Standards Organization (U.S.) 2005, p.7) for the metadata. The Museum's Archaeology and Anthropology taxonomy is two-level, and it currently comprises 27 categories with 709 object types distributed across these categories. The taxonomy provides a framework for describing objects in the collection. By 'organizational warrant' we mean that it is 'warranted' or authorised within the organisational or corporate context of the Museum.

For the prototype of the VMP an initial 400 objects from the Pacific Collection were selected. From information gathered during this process, we estimate that about 50% of these objects have an entry in the CMS, and that nearly all of these objects need the creation and/or revision of their descriptive information to bring them up to a uniform identification standard. This involves normalising spelling and checking thesauri. For example, testing whether "mother of pearl" or "pearl shell' should be used as an attribute, or whether a "dagger" should be tagged as such or with a preferred term such as "knife". We estimate that an average of one hour of effort per object is required for basic metadata 'cleaning', and another hour to write an interpretive label (reminiscent of the descriptive card in a museum exhibition case). So, while the metadata adds enormously to the value of an object for research and web-based exploration, there is a significant staff and time cost involved in establishing an adequate information base for it. This added information provides enormous value by identifying, cataloguing and describing the object, thus making it readily accessible to various communities.

The translation of the Australian Museum's existing metadata into a formal taxonomy, which is then applied into the VMP, presents an interesting and novel application of the collection that has sparked considerable stakeholder interest in communities that wish to explore and annotate the objects. In the remainder of this paper, we identify some of the different user communities who will interact with the collection and a number of issues regarding the management of a user-driven, bottom-up folksonomy and its compatibility with this institutionally-derived taxonomy.

User communities

The diverse communities which comprise potential users of the VMP for object discovery and annotation may each create their own specific annotations, and they may also be influenced by the annotations of other communities. There are several evident stakeholder groups that can be inferred as intersecting communities, including (but not limited to) creator communities, museum staff, independent researchers, students, private collectors and anthropologists. The first of these is the original Pacific Island community from which the object was collected or acquired. This is often called the creator community. It could be said that this group had (or still has) a thorough understanding of the object's cultural significance and practical use. In Sydney there is a significant subset (or parallel set) of these communities; the Pacific Island diasporic communities, which tend to be concentrated in specific areas such as the south-west of the city and which, while highly permeable with their communities of origin, also have distinct features compared to the original creator communities.

There are then possibly multiple transactions between the people or entities, the 'collectors', who have possession of an object before it reaches the Museum. The documented information passed on by collectors along with classification and provenance documents form the foundation of the metadata associated with the object at the Museum. Given that parts of the Pacific Collection date back to the early 19th century and that the Pacific Island creator communities may have transformed considerably over that time, the information about an object in the possession of the Museum becomes increasingly important in defining its meaning and significance as time passes.

The minimal sets of communities likely to use the VMP are scholars, the diaspora from the originating communities, the creator communities in their homeland and the general public. Each of these communities attaches a different subjective significance and vocabulary to the objects. The interactions and overlaps between private and public views of the objects, and communities' opportunities to leverage one another's knowledge in a respectful way is at the heart of the design of the Virtual Museum of the Pacific.

Critical mass, tagging intensity, community size and involvement

The sheer scale of the Pacific Collection raises questions about the scope of an online interpretive structure for it and how people might interact with it. A collection of 60,000 objects from any source without metadata is a daunting prospect for exploration. Imagine a library of books with blank covers, and no cataloguing or ordering of books on its shelves. For this reason, the existing metadata provided by the Museum is of extraordinary value. Without it, every object would have no point of reference and would therefore be effectively 'lost'. The VMP uses descriptions from the Museum's CMS to seed the relationships between the objects. Once this basic structure is in place, the communities have the opportunity to find the objects that are the most important to them. If each of the communities has access to tools to tag, annotate and refocus the visible vocabulary around objects that they have found interesting, then they are able to adjust the conversation to improve the relevance to themselves, as well as improve, correct and extend the quality of the metadata.

Each of the likely communities will have differing profiles for adding descriptive information. Therefore, the ontology of the VMP will be a system of interacting communities and their annotations. The effort that each community makes in object annotation can

influence the conversation about objects in other communities. For instance, if the original Pacific Island community makes public additions to descriptions of objects, then it is almost certain that these changes in vocabulary will affect the language and taxonomy used by scholars at the Museum, thus improving the coverage and timeliness of categorisation and other annotations (Voss 2007; Hayman 2007). Enabling access to objects (which may have few examples in their homeland) will also encourage discussion and knowledge in their communities of origin.

It is likely that communities using the VMP will vary substantially in size and activity. There is a reasonable hope that useful semantics will emerge from the activities of communities of all sizes (Lux et al. 2007; Cattuto et al. 2007). Folksonomies, or informal classification systems derived from ongoing practical use, are currently defined in terms of 'narrow' and 'broad'. 'Narrow' commonly describes a user tagging resources for their own purposes, and 'broad' usually refers to collaborative tagging by a large number of users intent on knowledge sharing (Vander Wal n.d.; Vander Wal n.d.). We believe that in a system of communities, in which each is more or less distinct from the others, it will become more appropriate to evolve 'breadth' as a qualifier for a folksonomy. 'Breadth' may come to represent the size of the community and the rate of diffusion of its vocabulary within other communities.

In order to deliver a useful environment for constructive social engagement with the Pacific Collection through the VMP, it is important that we capture the data that is fundamental to enabling rich toolsets for community engagement. The most basic data required for analysis is a core triple of *<user, resource, {tags}>*, augmented by a timestamp; this represents a 'post' event (Cattuto et al. 2007). It is also important to capture any association between specific users and any groups of which they are members. This user and group association is important to assist in separating the semantics emerging from each group and in reducing the apparent 'noise' that would occur if many small groups' activities were aggregated as one large tag-space.

Additionally, the partitioning of users into groups can introduce a level of control with the quality of both the tagging of objects (the associations between the tag and the object) and the definition of customised tag groups – or 'perspectives'. This is to ensure that the object tags and their taxonomies are protected from abuse or nuisance tagging. A user may be a member of one of more groups, in which each group has a certain level of permission. Some groups may or may not be able to tag objects, whereas others may or may not be able to create their own tags or folksonomies, or interact with an existing folksonomy. This control is crucial as the clarity and multi-dimensionality of the tag hierarchy is a key determinant in providing cross-dimensional relationships or interpretations of museum objects, especially as the interpretive description of an object can be highly influenced by its context and user community. The level of involvement that a group would have with the collection and folksonomy depends on the relevance, interest and cultural value of the objects as determined by a group's administrator. Indigenous communities and curators would have a high level of permission and access whereas unregistered users or the general public would have a more restricted access.

Access control model

The design of the access control model of the VMP is carefully considered in order to achieve a balance between accommodating the interests of the user community and preserving the integrity of the formal taxonomy derived from the Australian Museum.

Additionally, restricted access of selected collections to groups such as the general public or casual users of the VMP may be important with regard to intellectual property or other sensitive issues concerning the exposure of the artefacts to the broader public. The roles and permissions of registered users are primarily determined by their group membership. Groups can be either public or private, where users can opt in to join a group or be registered exclusively by invitation only. Appendix 1 identifies several user groups with varying levels of permission in terms of their perspectives and ability to view, edit and delete objects, and tag hierarchies. This table represents a subset of permissions made available to users, and represents the first dimension of access control, which is role-based. Note that although four predetermined roles appear to exist, they can be customised according to the permissions set by the administrators of that group.

The second dimension relates to the restricted set of objects that a group is allowed to interact with along with a restricted vocabulary set – known as a perspective – that assigns semantic meaning to those objects as shown in Figure 3. For instance, an Indigenous group from a certain region of the Pacific may have a high set of permissions relating to the ability to extend the vocabulary of tags but their perspective may be limited to a particular subset of objects from that region. This model can be extended to other user groups where restrictions may be required to address concerns surrounding the exposure of culturally sensitive objects or potential abuse of the formal taxonomy. By clustering users into groups, which are then defined by permissions and perspectives, the VMP encourages inter- and intra-group collaborative efforts while still retaining control over the exploration and tagging of objects. This model ensures vibrant community participation and folksonomy generation with little or no risk to the valuable data contained within the researched metadata and extracted formal taxonomy.

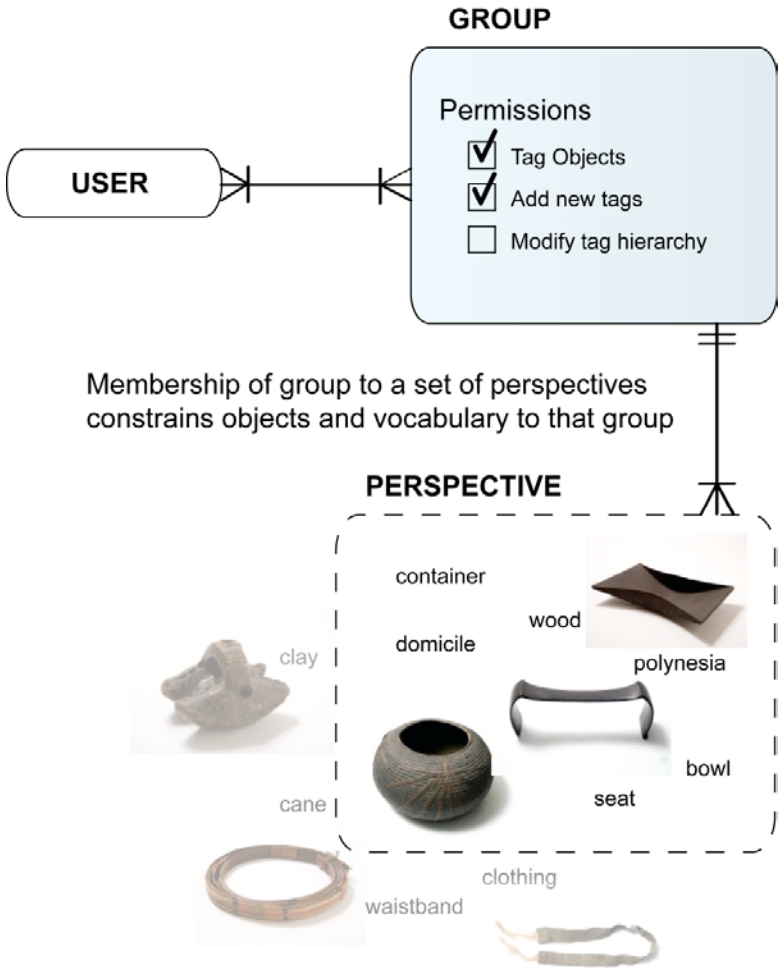

Figure 3

Interacting folksonomies and taxonomies

The ontologies, and the communities that create them, that are associated with long-lived collections like those of the Australian Museum evolve over time. How do annotations behave over a long period of time? Terminology in any community changes as understanding evolves, nomenclature drifts with time, and contemporary tagging frequency changes. Historical tags compete with current usage for our attention. The museum had a particular taxonomy 100 years ago, and another taxonomy 50, 15, 10 and 5 years ago. Changes have flowed from changing cultures and disciplinary understandings; from evolving interactions with Indigenous communities, and because of clashes in technological approaches, such as an attempt to apply 'big' general taxonomies which was later rejected. What was once a relevant taxonomy in a subject area which had high currency can be made less relevant by a contemporary, less frequently used taxonomy – for instance concepts such as 'phrenology' and 'phlogiston' were both popular in their time but are now defunct and obsolete. Likewise, terms used to describe, classify or evoke the functions or cultural significance of artefacts may change over time, and hence the classification models or terminology may adapt. Given that a user group has enough privileges to do so, they would be able to define or redefine a classification schema to suit contemporary trends.

The Australian Museum has created and administers its own corporate, formally-managed taxonomy embodied in the Museum's CMS descriptive vocabulary. While the annotations and tags applied by stakeholder communities to objects in the collection are likely to be

folksonomic rather than formal (Vander Wal 2007), the system has been designed on the understanding that the warrant of all formal taxonomies emerges from the vocabulary of a community of interest. The VMP system, under the auspices of the Museum, anticipates being able to facilitate the emergence of community-derived, dynamic taxonomies from the social media. These taxonomies will be supported by the VMP, and will also contribute to the evolution and relevance of the formal taxonomies of museums. In the digital ecosystem of interacting communities that we expect the VMP to become, these terms describe the endpoints but obscure the probability of there being a continuum of formality and breadth. We expect that the interaction between formal taxonomies and community folksonomies will enrich both, keeping the former fresh and up-to-date, and provide some stability and common vocabulary for the latter, creating a useful metadata digital ecology (Rosenfeld 2005; Barbosa n.d.).

Formal taxa are inevitably influenced by community usage (Cattuto et al. 2007). In the context of the VMP, the folksonomy represents a readily available representation of community usage for analysis. Much of the discussion of folksonomies mentions the occurrence of typographic errors when applying tags, but does not suggest the use of stemming, thesauri or other information storage and retrieval tools to help manage the intrusion of errors. Since applying algorithms to the tags after posting by a user may introduce misinterpretations, it seems more useful to provide support and suggestions from tools before the user commits the post, thus ensuring the user's intent is captured more accurately (Hayman 2007). Some of these tools can include data validation to determine if a new tag already exists, the use of edit distance or other string-based metrics to compare new tags with existing ones within the folksonomy or taxonomy, and visual tools for graphically navigating and modifying tag hierarchies to ensure that the tag is placed within its relevant category or perspective if it is being added to a formal taxonomy.

The access control model that we propose for the VMP describes how social media resulting from community tagging will be captured and treated. Our conclusion is that the formal taxa be maintained separately from the folksonomy tags. While detailed case studies are yet to be conducted on the responses and interactions of communities that use the system, our access control prototypes give us confidence that the technical design of the VMP will meet the requirements of stakeholder communities. User testing will focus considerably on the cultural as well as the technical aptness of the design, ensuring that issues such as cultural sensitivities are addressed appropriately.

Conclusion

The Australian Museum has well-developed links with the creator communities, both through organizations such as the Pacific Islands Museum Association, major Pacific Island museums and cultural centres and with individuals in particular communities both in the Pacific and within the Sydney diaspora. As a contemporary museum seeking to make sense of the vast acquisition processes that have informed its development and manage its collections responsibly, strengthening those links and increasing access to its Pacific Collection is a priority. The Virtual Museum of the Pacific, as a digital ecosystem that allows social tagging by its stakeholders as well as flexible and multi-dimensional browsing through online objects, has the potential to deliver significant advances on that agenda. Its capacity for facilitating and expanding debates about and categories of objects via tagging and folksonomy is situated alongside the Australian Museum's taxonomy and creates a space for considering and contesting assumptions about the role of objects in relation to social ontologies. It operates within understandings of language and taxonomies as dynamic and changeable social

processes rather than fixed categories, and as such it foreshadows future developments for collection management and social innovation in the museum industry.

Acknowledgment
This work was supported by an Australian Research Council grant LP0884075.

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APPENDIX 1 – PRELIMINARY ACCESS CONTROL TABLE

	Collection Managers and Curators	Research Specialists	Indigenous Communities	General Public (Registered Accounts)
Viewing Object Metadata				
Label / Description	X	X	X	X
Category / Item Name	X	X	X	X
Acquired Date	X	X	X	X
Materials	X	X	X	X
Location	X	X	X	X
Dimensions	X	X	X	X
Registration Number	X	X	X	
Keywords and 'tagged' attributes	X	X	X	X
Indigenous Names	X	X	X	X
Managing and Editing Objects				
Add a tag to an object	X	X	X	
Remove tag from an object	X		X	
Add a new object	X		X	
Change / upload an object's image	X	X	X	
Edit object metadata (excl. tags)			X	
Managing and Editing Attributes / Tags				
Define a new attribute / tag	X		X	X
Change the definition of an attribute	X		X	X
Remove an attribute / tag	X		X	X
Managing and Editing Perspectives				
Define a new perspective	X	X	X	X
Assign / Unassign attributes to existing perspective	X	X	X	X
Remove Perspective	X	X		
Wikis and Rich Multimedia Content				
View Wikis assigned to objects	X	X	X	X
Commit changes to Wikis	X	X	X	
Attach multimedia or files to objects / wikis	X	X	X	